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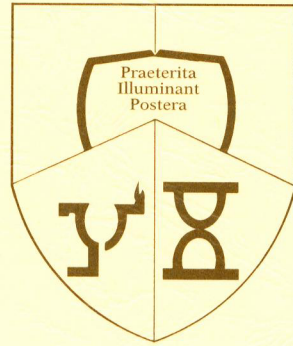
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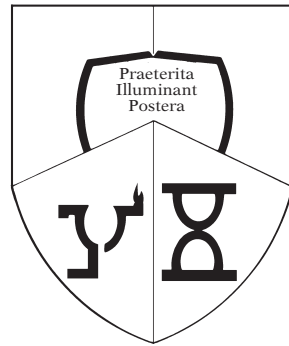


The *Accounting Historians Journal*

June 2001
Volume 28, Number 1

Research on the Evolution of Accounting
Thought and Accounting Practice

Published by
The Academy of Accounting Historians



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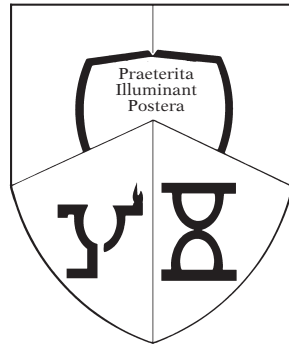
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The *Accounting* *Historians* *Journal*

June 2001
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Volume 28, Number 1

June 2001

CONTENTS

From the Editor	1
----------------------------------	---

Articles

An Archival Investigation of a Late 19th Century Accounting Information System: The Use of Decision Aids in the American Printing Industry —Roger B. Daniels and Jesse Beeler	3
--	---

Internal Audit at the Historical Hudson's Bay Company: A Challenge to Accepted History —Gary Spraakman	19
--	----

Small-Time Accounting: A 19th Century Meat Merchant in Maine —Gloria Vollmers and Darlene Bay	43
---	----

Interfaces

The Lady and the Accounts: Missing from Accounting History —Linda M. Kirkham and Anne Loft	67
--	----

Accounting History in Focus

Technological Innovations and the Work of the Accounting Historian: Some Key Issues —Leonard Goodman and Dan Palmon	93
---	----

Accounting History: A Survey of Academic Interest in the U.S. —Elliott L. Slocum and Ram S. Sriram	111
--	-----

Noticeboard

Accounting Hall of Fame Inductions, 2000 131

Announcements 155

ACCOUNTING HISTORIANS JOURNAL

Statement of Policy

The *Accounting Historians Journal* is an international journal that addresses the development of accounting thought and practice. *AHJ* embraces all subject matter related to accounting history, including but not limited to research that provides an historical perspective on contemporary accounting issues.

Authors may find the following guidelines helpful.

1. Authors should provide a clear specification of the research issue or problem addressed and the motivation for the study.
2. Authors should describe the method employed in the research, indicating the extent and manner in which they intend to employ the methodology. Manuscripts are encouraged that draw on a variety of conceptual frameworks and techniques, including those used in other social sciences.
3. Manuscripts that rely on primary sources should contain a statement specifying the original materials or data collected or analyzed and the rationale used in selection of those source materials. Authors should provide the reader information as to how these source materials may be accessed.
4. Authors who use a critical or new theoretical framework to examine prior historical interpretations of the development of accounting thought or practice should include a discussion of the rationale for use of that framework in the manuscript.
5. In performing all analyses, authors should be sensitive to and take adequate account of the social, political, and economic contents of the time period examined and of other environmental factors.
6. While historians have long debated the ability to assign causation to particular factors, we encourage authors to address and evaluate the probable influences related to the problem or issue examined.
7. Authors should clearly state all their interpretations of results, and the conclusions they draw should be consistent with the original objectives of and data used in the study. Interpretations and conclusions should be clearly linked to the research problem. Authors also should state the implications of the study for future research.

ACCOUNTING HISTORIANS JOURNAL

Guide for Manuscript Submission

Three (3) copies of manuscripts for publication review should be submitted to Professor Stephen P. Walker, Department of Accounting and Business Method, University of Edinburgh, William Robertson Building, 50 George Square, Edinburgh, EH8 9JY, U.K. There is no submission fee, although authors are urged to consider joining The Academy of Accounting Historians by completing the membership application form on the inside of the back cover. The *Accounting Historians Journal* will accept a variety of presentation formats for initial submission as long as the writing style is reflective of careful scholarship. Notwithstanding, authors should attend to the following guidelines (note that the word maximum has been eliminated):

1. an abstract of approximately 100 words on a page that includes the article's title but no identification of the author(s)
2. a limited number of content footnotes which appear at the bottom of the appropriate page
3. a limited number of tables, figures, etc., appended at the conclusion of the text, but whose positioning in the narrative is indicated
4. References are to appear in brackets within the text. Specific page numbers are mandatory for all direct quotes but are optional otherwise.
5. a bibliography of all references cited in the text

Upon acceptance or an invitation to revise and resubmit, authors will be sent a style sheet which must be followed conscientiously for all subsequent revisions of the paper. Once the article is accepted, the editor will request the submission of a diskette prepared in Microsoft Word. If time permits, authors will be sent galley proofs. However, the inclusion of additional material will be severely limited.

Authors will be provided with 3 copies of the *AHJ* issue in which the manuscript is published. Reprints may be ordered by arrangement with the publisher.

Accounting Historians Journal
Vol. 28 , No. 1
June 2001

FROM THE EDITOR

For over twenty years *The Accounting Historians Journal* has provided a major international medium for the dissemination of research findings on the history of accounting thought and practice. During that period the growth of academic interest and research activity in accounting history has been unprecedented. The expansion of the discipline has not, however, been a universal phenomenon. While scholars in several locations can point to the advancing recognition of the subject, there are indications in the paper by Slocum and Sriram (this number) that despite formal acceptance of the pedagogical value of accounting history, progress has been less marked in the U.S. Slocum and Sriram report that: in recent years the history content of learning programs has declined in the U.S.; the pursuit of accounting history is not always perceived as conducive to career-building; and research in the subject is seen as lacking in methodological rigor.

The pages of this journal will continue to provide a vehicle for disabusing observers of these notions. *The Accounting Historians Journal* seeks to reveal the importance of history to the community of accounting researchers and educators by pursuing the publication of high quality papers from around the world which extend beyond the narrow confines of antiquarianism, are founded on appropriate historical methodologies, are analytically rigorous, and inform and excite academic debate.

In relation to the writing and methodologies of accounting history, readers are alerted to the forthcoming Academy of Accounting Historians Research Conference 2001 in Santa Fe (see the 'Noticeboard' section). In addition a special session on 'Accounting History-2001' will also be held prior to the commencement of the AAA Annual Meeting in Atlanta this August.

The findings of studies such as Slocum and Sriram also indicate the need for a wider dissemination of the fruits of accounting history scholarship. The Academy of Accounting Historians has contracted with the Gale Group for online distribution of *The Accounting Historians Journal* from 2001. The full text of the journal will be available in the 'History Resource Center' and 'Expanded Academic' databases at galegroup.com. Increasing the visibility of the journal and reaching new audiences in this way also accords with the objective of the

Academy to encourage the interrelation between accounting history and other branches of history. This was one of several important themes to emerge at the Comparative International Accounting History Consortium at Tuscaloosa in May 1999.

In recognition of the mutual advantage to be gained by engaging with the broader community of historians, a new section of *The Accounting Historians Journal*, 'Interfaces,' has been established. The object is to reconnoitre literature in history for emerging themes with implications for research directions, theoretical perspectives and methodologies in accounting history. Cheryl McWatters, Reviews Editor, has commissioned a number of exploratory essays, the first of which, by Linda Kirkham and Ann Loft, appears in this number. It is envisaged that the 'Interfaces' section will also contain reviews of periodical literature in history which is pertinent to accounting historians.

On behalf of Professor R. K. Fleischman, I am delighted to announce that the following articles were selected by the editorial board as the best contributions to Volume 27 (2000):

Best paper:

Keith W. Hoskin and Richard H. Macve

'Knowing More as Knowing Less? Alternative Histories of Cost and Management Accounting in the U.S. and the U.K.'

Awards for excellence:

Thomas A. Lee

'A Social Network Analysis of the Founders of Institutionalised Public Accountancy'

Joel H. Armernic and Russell J. Craig

'Accountability and Rhetoric During a Crisis: Walt Disney's 1940 Letter to Stockholders'

Accounting Historians Journal
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Roger B. Daniels
COLLEGE OF CHARLESTON
and
Jesse Beeler
MILLSAPS COLLEGE

AN ARCHIVAL INVESTIGATION OF A LATE 19TH CENTURY ACCOUNTING INFORMATION SYSTEM: THE USE OF DECISION AIDS IN THE AMERICAN PRINTING INDUSTRY

Abstract: This study investigates management's use of decision aids within the context of an accounting information system of a late 19th century American printing firm. Our findings suggest that the use of decision aids by management transformed traditional accounting techniques and the cost accounting system into an intricate accounting information system by 1880. These decision aids allowed managers to manipulate accounting information to support decisions involving pricing, cost allocation and estimation, profitability assessment, management of receivables, and inventory control. The findings shed new light on the early work of Alexander Hamilton Church on the issue of idle time accounting and raises questions about the uniform costing movement in the American printing industry.

The press, indeed, was the dynamic force of the 1820's, setting the pace of political change in all the advanced societies. It was associated with the latest technology, a process begun in 1813 when John Walter of the London Times bought the first two double presses worked by steam.

Paul Johnson
The Birth of the Modern [1991]

Submitted June 1999
Revised May 2000
Revised February 2001
Accepted March 2001

INTRODUCTION

Extant historical research has examined accounting information systems within the printing industry [DeRoover, 1932; Edler, 1937; Garner, 1954; Daniels and Plunkett, 1994; Walker and Mitchell, 1996]. These studies provide insights into the emergence of relatively sophisticated accounting systems within that industry by the 16th century, the evolution of these systems during the industrial revolution, and the use of such systems to support price collusion and control labor costs during the early part of the 20th century.

This paper expands the work of Daniels and Plunkett [1994] by examining specific managerial decision aids inherent in the accounting information system of the American printing firm, Walker Evans & Cogswell (WE&C) during the late 19th century. The present study provides evidence that WE&C used relatively sophisticated accounting-based decision aids to facilitate decision making. To date, no empirical study has addressed the use of such decision aids within the context of an accounting information system for the printing industry during this period.

19TH CENTURY ACCOUNTING SYSTEMS

The notion of accounting as an information system emerged as a logical result of the industrial revolution. Littleton [1933, p. 320] implied that the advent of the factory system and the inherent issues of mass production resulted in accounting phenomena being transformed into an intricate system to manage and control the firm:

... when the factory system began to displace the domestic system, production fell under the direction of enterprisers who paid wages, bought materials and supervised the process of producing goods for profit ... They had a motive for records, therefore, which the family or the solitary producer had not. The latter, making no money outlay for wages, counted his return (above materials) as his own wage; the former could not gage his degree of success or intelligently set his prices without some more or less systematic apposition of his returns and his several outlays.

Sophisticated cost accounting systems developed across industries during the 19th century. Chandler [1977] examined the emergence of such systems among railroads. These early

systems allowed for the management and control of geographically dispersed and capital-intensive operations. Railroads were among the first entities to produce detailed information concerning returns on invested capital. By the early 1900's uniform systems of accounting had emerged in that industry. The use of cost accounting information in the railroad industry to assess managerial performance through the use of an operating ratio was studied by Johnson and Kaplan [1987].

The accounting records of Lyman Mills provide evidence that elaborate cost accounting records were maintained to support management's estimation of product costs during the period [Porter, 1980]. Tyson [1988, 1992] found that 19th century cost accounting systems in conjunction with a managerial component supported a broad scope of decisions in the manufacturing and textile industries.

Fleischman and Tyson [1998, p. 92] examined managerial decision-making and control as the primary use of accounting information during the industrial revolution in the United States and the United Kingdom. Their study highlighted the inherent problems and criticisms of traditional standard costing systems. They concluded:

The use of predetermined, norm-based standard costs has come under fire recently for not providing appropriate strategic signals in an era of global competition, continuous improvement, and perpetual cost reduction. In response, many companies appear to have abandoned the use of standard costing for control purposes. This is seen as the beginning of an evolution back to earlier days when standards were deployed primarily for decision-making purposes.

Garke and Fells [1878, p. 3] described the inherent relationship of the factory system and systems of regulating the intricate affairs pertaining to a factory. Their work identified management's need for the accurate and detailed information necessary to control raw materials and wage expense, and cost estimation including the allocation of overhead to production. The inherent relationship of accounting and the human element is described in the following excerpt from the 1878 edition of *Factory Accounts* [pp. 6-7]:

There is little doubt also that under a well-organized system of factory accounts, each employ   feels that he is contributing to the attainment of accurate records of costs; and that it is necessary that his account of the

time he spends, and the material he uses, should be adequate and precise. This begets general confidence in the manner in which the accounts are kept, and on occasion of strikes or reduction of wages, or resort to the sliding scale, employés have less hesitation in accepting the results shown by the books as correct and based on fair principles.

Kaplan and Johnson [1987, p. 57] credited Alexander Hamilton Church with perfecting product cost accounting systems in the early 1900s which facilitated the tracking of overall company profits to individual products. These systems were different in nature from the early conversion cost systems as the earlier systems gathered information to help managers evaluate and control the efficiency of internal processes, not to link performance in each process with the firm's overall profitability.

In his *Production Factors in Cost Accounting and Works Management*, Church [1919] discussed the concept of accounting for idle machine time. He argued for the inclusion of idle time in estimating production costs. It was suggested that a charge for idle time be separately identified and aggregated with other elements of waste and allocated to the cost of production. He stated that records of waste must be tied to the general accounting system. Throughout much of his work on estimating production costs, Church advocated the use of decision aids (specifically, visual aids) in making meaning of accounting data [Vangermeersch, 1988]. With respect to idle time accounting, Church [1919] stressed the need for an idle time chart for machinery.

ACCOUNTING SYSTEMS IN THE PRINTING INDUSTRY

Expanding on the work of DeRoover [1932], Edler [1937] conducted an in-depth study of the Plantin printing establishment of Antwerp and established that relatively sophisticated accounting information systems were present as early as the 16th century.

By the 1820's, the printing industry was characterized by the need for information relating to labor and capital investment [Johnson, 1991]. Labor groups resisted the introduction of the steam presses fearing job displacement. Many newspaper publishers refused to make the capital outlays to acquire steam presses arguing that the life of the machine would not produce sufficient output to yield a profit [ibid.]. Despite this early resistance to technological innovation, the printing industry

flourished as a result of increased demand for books, newspapers, magazines, stationery and other printed material during the industrial revolution. By the 1870's, relatively sophisticated cost accounting systems had emerged to support managerial decision-making and control.

Daniels and Plunkett [1994] examined management accounting in the printing firm of Walker Evans and Cogswell (WE&C) during the American *New South Movement* of the late 19th century: a period of dramatic social and economic change. That study found that managerial accounting aided the economic transformation of the American South following the Civil War. The records of WE&C provided evidence that the accounting information system supplied critical information concerning liquidity and cash flow, sales, and product costs. The management of WE&C relied upon the accounting information system to produce comparative reports for planning and control purposes.

Price Control in the Printing Industry: There is evidence that established American printers may have engaged in collusion to control the price of printed materials, papers, ink and supplies during the 18th and 19th centuries. In *The History of Printing in America*, Isiah Thomas [1810] refers to price collusion as early as 1742 among the booksellers of Boston. *The Printers' Price List* published by Theodore DeVinne [1871] was particularly influential in establishing prices within the industry. DeVinne proposed, "[n]o printer can make prices to suit himself, in complete disregard of his competitors. Whoever makes charges for ordinary work in ignorance of current prices, must make many mistakes, quite as much as his own injury as to that of his competitors" [ibid., 1871, p. 6].

Tichenor [1980] provided conclusive evidence that printers engaged in collusive schemes aimed at reducing price variation. Collusion among established printers influenced price through the control of raw materials and retail goods including inks, papers, forms, account books and printing supplies.

While there were many firms within the printing industry, prices appear to have been heavily influenced by a few large firms. Printing firms faced rigid wholesale prices in acquiring raw materials as well as rigid retail price structures for the goods they sold to consumers. This may have led to the development of techniques resembling *target-type* cost accounting systems as the need emerged to strictly control costs internally

to meet rigid prices in the market.¹ Because the cost of raw inputs as well as the price that the firm could charge consumers was essentially preset by prepared price lists, each printer was forced to strictly control the cost of production and profit margins so as to comply with cartel mandates. Thus, internal cost structures were implemented so that the individual printer could meet the established *target price* set by the cartel. Collusive agreements could be enforced by retaliation against non-complying cartel members through their elimination from the supply chain [Shughart, 1990].

Garner [1954] noted that uniform systems of accounting in the printing industry emerged around 1914 in the U.K. In the U.S., the printing industry was among the first to adopt uniform systems of accounting. The *Standard Accounting System for Printers* was an industry-wide effort in the U.S. to “make the practices of the industry as regards cost finding, estimating, selling and general accounting uniform and stable” [Jackson, 1919, p. 358]. However, there is evidence that uniform accounting systems for printers may have begun in the U.S. during the late 19th century. For example, *Kellogg’s Auxiliary Handbook*, which was published in 1878, outlined the basic accounting books and forms for a printer as well as techniques for properly recording transactions in the day-book and ledger. The *Handbook* also provided guidance in marking-up inventory to retail as well as pricing of printing jobs. This work appears to be the earliest indicator of the American uniform costing movement within printing industry.

WE&C’S DECISION ENVIRONMENT

According to *A History of the Walker Evans & Cogswell Company* [WE&C, 1921], its operations began in 1821. Founded in Charleston, South Carolina, the firm depended initially on small orders of stationery. By 1850, WE&C had expanded its business to other regions in the U.S. Vertical integration had occurred by 1870 and the company was competing in the retail market for printing supplies, ink, paper and capital goods such as printing presses, binding and cutting equipment. By 1890, the annual sales revenue of WE&C was approximately

¹ Variation in price may have resulted from breakdowns in collusive schemes. Shughart [1990] observes, [o]ligopolists have a powerful incentive to collude; they have an equally powerful incentive to cheat (compete).

\$500,000, with net profit of around \$275,000. Net assets of the firm exceeded \$600,000 by the end of the 1890's. The firm employed approximately 125 persons in 1875. By 1890, that number had increased to 155.

The firm was seized by the confederate government during the American Civil War and became responsible for printing the South's currency and bonds. WE&C's monogram is often seen on much of the currency and bonds printed and issued by the Confederacy. The firm managed to survive the war and re-emerged as a viable business during the period of reconstruction. There is evidence in the WE&C archive that the firm provided economic support for Henry W. Grady, renowned *Spokesman of the New South* and managing editor of the *Atlanta Constitution*, the South's leading newspaper of the period. This assistance was made through the extension of credits for the purchase of printing presses, equipment, paper, inks, and supplies.

Prior to its expansion into other geographical printing markets and entry into retail business, accounting at WE&C was relatively non-problematic. The system of record keeping consisted mainly of a day book and ledger. The volume and complexities of commerce in the early years of the firm did not demand the use of sophisticated accounting schemes. However, with the advent of increasing sales outlets in the 1850's and the entry into the retail markets in the 1860's, the information requirements of WE&C management increased dramatically. The firm implemented a standard costing system which evolved into a broad scope accounting information system.

By 1875, WE&C's accounting information system consisted of a relatively sophisticated standard costing component and a system of accounts which, through specific decision aides, facilitated decision making for owner/managers in various functional areas. The *President's Memorandum Book* (PMB), kept from around 1870 until the end of the decade, provides much detail concerning the decision making activities of management. It appears to have served as a mechanism of control for integrating the various functional elements of the information system to produce detailed reports for managing and controlling operations. For example, the transfer of inventory from the Printing Office and Bindery (PO&B) to the retail division, in addition to the complexities introduced by vertical integration, resulted in the need for comparative information and detailed inventory reports. The exhibits presented in this paper illustrate the contents of the PMB.

Managerial Decisions at WE&C: A broad scope of decision making was supported by accounting information at WE&C's during the later 19th century. Accounting data was manipulated and analyzed via the various decision aids employed by management. The presence of these decision aids transformed the standard costing system and traditional accounting techniques into a more comprehensive information system which supported decisions involving pricing, cost estimation, cost allocation, profitability assessment, management of receivables, and inventory control.

Pricing: The decision aid, *Profits on Discounts* [Exhibit One] allowed pricing alternatives to be evaluated from a contribution margin perspective. This schedule, developed and used by 1871, allowed management to determine gross margin on sales based upon discounts given by WE&C's suppliers and the discounts WE&C granted to customers. This aid was used in conjunction with DeVinne's published price lists which provided baseline prices for wholesale and retail goods. In other words, the aid facilitated the calculation of gross profit on sales in light of discounts afforded to the firm and discounts subsequently granted to customers.

Through the use of discounts on profits, management was able to determine the price of goods sold to customers. This technique was a profit maximization endeavor in which discounts were granted based upon management's estimation of future cash flows from individual customers. Cash customers

EXHIBIT ONE
WE&C Profits on Discounts
1871

<i>Discounts to WE&C</i>	<i>Discounts Given By WE&C</i>								
	<i>0%</i>	<i>5%</i>	<i>10%</i>	<i>15%</i>	<i>20%</i>	<i>25%</i>	<i>30%</i>	<i>40%</i>	<i>45%</i>
50%	100	90	80	70	60	50	40	20	10
40%	66	58	50	41	33	25	16		
35%	54	46	38	30	23	15	07		
25%+10%	48	40	33	25	17	11			
30%	43	35	28	21	14	07			
25%	33	26	20	13	06				
20%	25	18	12	06					
10%+5%	17	11	05						
10%	11	05							

generally received the highest discount rate while accounts receivable customers received discounts based upon management's assessment of their relative long-term cash flow potential. The PMB contains entries indicating that the assessment of the cash flow potential and desirability of customers was perpetual. Customers were evaluated on the timeliness of payments, volume of purchases and, in a few cases, standing in the community.

As an example of how the decision aid, *Profits on Discounts* was used, if WE&C suppliers allowed a 30% discount on inventory purchased, and WE&C subsequently gave its customers a 20% discount, the profit on discount (or gross margin on sales) for the firm would be 14%. Of course, the discounts given to WE&C by its suppliers were fixed for each calculation, so management could find the discount to be given to customers by determining the desired gross margin for the transaction. With the use of this particular decision aid the firm would adjust its selling prices through discounts granted while controlling the profit margins on goods sold. This technique may have also facilitated the maximization of the value of individual customer accounts. It appears that more favorable discounts were granted to those customers who demonstrated creditworthiness and made relatively significant purchases.

Using this technique in conjunction with an established acceptable rate of return on the investment in inventory, WE&C was able to manipulate the discount feature to maximize profit. Once the required return on inventory was set, discounts on customer purchases could be used to manipulate net sales to achieve the necessary gross margins. Granting favorable discounts to certain customers appears to have established long-term business relationships. Thus, through the use of pricing data and decision aides, management was able to maximize both profitability and future cash flows from individual accounts receivable.

Cost Allocation and Estimation: By 1880, WE&C's cost accounting system allowed costs to be allocated to work according to a predetermined rate for each specific type of machine used and each category of labor employed. Once labor and machine costs were identified for a particular job, an additional cost component representing overhead was allocated to the job. Exhibit Two illustrates the costs associated with each production activity.

EXHIBIT TWO

1880 Cost of Work²

Press Room	<i>Gordon Press</i>	<i>40 cts per hour</i>
	<i>Cylinders</i>	<i>80 cts per hour</i>
	<i>Dble Med.</i>	<i>100 cts per hour</i>
Composing Room	<i>Journeyman time</i>	<i>60 cts per hour</i>
	<i>Apprentices</i>	<i>25 cts per hour</i>
Bindery	<i>Piece work</i>	<i>70 cts per hour</i>
	<i>Finishing</i>	<i>70 cts per hour</i>
	<i>Forwarding</i>	<i>55 cts per hour</i>
Ruling Room	<i>..ils</i>	<i>15 cts per hour</i>
	<i>Monogram</i>	<i>15 cts per hour</i>
	<i>Paging</i>	<i>20 cts per hour</i>
	<i>Cutting</i>	<i>40 cts per hour</i>
	<i>Ruling- Journeymen</i>	<i>60 cts per hour</i>
	<i>Ruling- Apprentices</i>	<i>50 cts per hour</i>

Production costs were identified by specific machine. As shown in Exhibit Three, the cost of production relating to machine usage and labor included the cost of idle time. This schedule permitted managers to effectively bid on jobs, control costs, and evaluate the efficiency of printing operations.

EXHIBIT THREE

1880 Production Cost Schedule

<i>Machine</i>	<i>Cost of Machine per hour</i>	<i>Cost of Labor per hour</i>	<i>Total Cost per hour</i>	<i>Remarks</i>
<i>Monogram Press</i>	<i>03.</i>	<i>12.</i>	<i>15.</i>	<i>Allowing ½ idle time</i>
<i>Paging</i>	<i>4.</i>	<i>8.</i>	<i>12.</i>	<i>Allowing ¼ idle time</i>
<i>Cutting</i>	<i>25.</i>	<i>15.</i>	<i>40.</i>	<i>Allowing ½ idle time</i>
<i>Ruling-Journeymen</i>	<i>8.</i>	<i>43.</i>	<i>51.</i>	<i>Allowing ½ idle time</i>
<i>Ruling-Apprentice</i>	<i>8.</i>	<i>19.</i>	<i>27.</i>	<i>Allowing ½ idle time</i>

While a full discussion of WE&C's standard costing system is outside the scope of this study, Exhibits Two and Three illustrate the capabilities of the system to provide cost data relating to each activity for each division of the PO&B. By 1880 the standard cost system had the capability to assign overhead to production.

² These costs are titled *Cost of Work* in the PMB and include a 15% overhead rate.

An interesting and important element of WE&C's standard cost system is provided in Exhibit Three. This illustrates how the cost of each type of machine and each category of labor was calculated on an hourly rate. Of particular significance is the fact that by 1880, WE&C had identified and quantified the cost of idle time for both man and machine on a per-hour of production basis. Church, in his writings during the early 1900's, discussed the treatment of idle time and is credited by Vangermeersch with conceptualizing this element of cost. The data provided in Exhibit Three suggests that Church was not the first to recognize the importance of identifying, quantifying, and recording the cost associated with the "waste" of idle machine hours.

Profitability Assessment: The Comparative Analysis of Expenses and Sales [Exhibit Four], undertaken in 1871, represents a decision aid used to evaluate the profitability of the retail division of WE&C. The retail division was evaluated separately from the printing or manufacturing operations. Inter-departmental transactions between the retail division and the printing division were not eliminated. Expenses were identified by cost of goods sold ("Merchandise Expenses") and by Store Expenses.

EXHIBIT FOUR

Comparative Analysis of Expenses and Sales

1869-70 and 1870-71

Exclusive of Printing Office and Bindery

In Merchandise Expense is including expenses upon all stock which was used in PO&B.

No deduction for salaries is made for labor performed in Store for PO&B

No allowance is made for Store work done in PO&B

Salaries or profits of partners are not included in Expenses.

	1869-70	1870-71
<i>Store Expenses including rent, insurance & salaries</i>	\$ 8,031	\$ 8,716
<i>Merchandise Expenses including merchandise insurance</i>	<u>3,743</u>	<u>3,297</u>
<i>Total Expenses</i>	<u>11,774</u>	<u>12,013</u>
<i>Credit Sales</i>	81,885	73,088
<i>Cash Sales</i>	<u>13,234</u>	<u>12,888</u>
<i>Total Sales</i>	\$95,119	\$85,976
<i>Percentage of Expenses on Sales</i>	12.4%	14%
<i>Percentage of Partners Salaries on Sales</i>	24.4%	27.3%

The *Comparative Analysis* indicates that the accounting system was capable of producing information for each division and tracking inventory transfers from the Printing Operation and Bindery to the retail division. This analysis shows that the complexities were reduced by transferring inventory at cost rather than at markup. Cash flow data permitted both intra- and inter-period comparisons of the proportion of credit to cash sales.

The use of sales and expense data to calculate return on investment to owner/managers was demonstrated in the analysis. Owner's salaries were not included in salaries expense and this allowed for a more accurate assessment of return for investors. From the PMB it appears that WE&C used this technique to measure returns for each division. Notations in the PMB indicate that profitability projections among the divisions drove internal resource allocation decisions. As profit margins for the retail division became more lucrative, additional capital outlays were made to increase the capacity for retail business [WE&C 1921]. Hence, this particular decision aid was important in the capital budgeting process at WE&C.

Management of Receivables: Accounts receivable represented a significant portion of WE&C's net assets and credit sales represented nearly 75% of the firm's revenues during the 1870's. Each credit customer was evaluated. Credit terms and price charged for goods were set based upon this analysis. The granting of discounts to customers appears to have been a function of management's assessment of the potential cash flow from each credit customer.

The PMB contains extensive analysis of the credit worthiness and sales volume for significant customers. Notations relating to WE&C's relationship with Barret and Brown of Montgomery, Alabama, for example, indicate that the accounts receivable general ledger was studied to establish specific sales discounts based upon past sales volume and payment history. Notes on the customer were written into the PMB.

Uncollectible accounts were analyzed by division. Bad debt schedules were produced from the Day Books. Debt collection efforts were based upon these schedules and managed centrally in the accounting department. Bad debts were proportionally allocated to the Retail Business, Wholesale, and PO&B. These proportions were compared to the revenues generated by each division and matched with sales generated during a 31 month period ending June 6, 1870. Exhibit Five illustrates this point. It

EXHIBIT FIVE
Analysis of Uncollectible Accounts
June 6, 1870

Total Sales for 31 months	\$240,000
<i>On June 6th these assumed uncollectible</i>	\$2,555
Percentage of Loss	.0107
<i>Divided as follows</i>	
<i>Retail Business</i>	20%
<i>Wholesale</i>	33%
<i>PO&B</i>	47%
Proportion of Business Done	
<i>Retail</i>	\$120,000
<i>Wholesale</i>	50,000
<i>PO&B</i>	70,000

appears that WE&C used many such decision aids to maximize profits and control losses associated with credit sales.

Inventory Control: Inventory management techniques were employed by WE&C to control the investment in raw materials for the retail division and Printing Operations and Bindery (PO&B). The *Inventory Management Schedule* [Exhibit Six] illustrates management's tracking of a particular paper inventory item in 1872. This decision aid was used for raw material inventory and facilitated the determination of average monthly requirements.

These inventory management schedules permitted budgeting of raw material expenditures and minimized the risk of stock-outs by identifying seasonal variation in demand. Also, the notations in the schedule assisted management in identifying anomalies in demand due to large or non-recurring customer orders. While this schedule enabled the forecasting of inventory requirements, significant levels of safety stock were necessary due to the limitations of contemporary systems of transportation and communication.

Vertical integration resulted in commonality of inventory items between the PO&B and retail division. The size/weight inventory in Exhibit Six had many uses in the manufacture of printed goods and was sold through the retail division as well. This type of decision aid was also used for inks that were transferred from large containers in the PO&B and placed in bottles to be sold to retail customers.

EXHIBIT SIX
Inventory Management Schedule
WE&C 1872

<i>Size/Weight</i>	<i>1872 Jan-July</i>	<i>1872 July-Dec</i>	<i>1872</i>	<i>Avg./ month</i>	<i>Remarks</i>
14x17- 14	64	164	228	19	<i>Spring of 1872 we printed stock of Alabama blanks</i>
16	168	109	277	23	
18	24	52	76	6	
16x20- 16	23	26	49	4	
20	334	197	531	44	<i>24lb used for SCRR- lists after July & thereafter will be used principally for store blank books.</i>
24		74	74	6	
16x21- 28	16	32	48	4	
17x22- 16		26	26	2	
20	22	86	108	9	<i>Used principally for store blank books</i>
24	18	34	52	4	
16x26- 24	54	36	80	7	
26	44	35	79	7	
17x28 28	16	32	48	4	<i>Used for check books</i>
32	28		28	2	
36	12	12	24	2	
18x23 36	12		12	1	<i>Used for store checks</i>
17x24 20		41	41	4	

Inventory was initially allocated to the two divisions at cost. For bidding and cost estimation purposes, inventory placed in production in the PO&B was accounted for at cost. The price of jobs to customers was determined by calculating labor, materials, and an overhead component. These amounts were subsequently marked-up to the price charged to customers based upon management's required rate of return.

DISCUSSION OF FINDINGS

The evidence presented in this study suggests that an intricate accounting information system had evolved at WE&C by 1880. It appears that the decision aids utilized by this firm provided the foundation of an accounting information system that supported decisions involving pricing, cost allocation and estimation, profitability assessment, management of receivables, and inventory control. These decision aids allowed managers to convert accounting data into useful information to manage and control the activities of the vertically integrated operations of WE&C.

The inherent complexities of coordinating resources to maximize profit in a vertically integrated printing firm during

the 1870's likely provided economic motivation for the development of decision aids to manage and control operations. Additionally, attempts by the printing industry cartel to control market prices, likely created the need for broad-based accounting systems capable of producing information to control costs and support managerial decision making.

WE&C implemented decision aids designed to maximize the utility of its accounting data. Using the decision aids described in this study, management was able to integrate the system of journals, ledgers, and inventory control books to create a comprehensive accounting information system. This system allowed management to price goods, estimate and allocate costs, assess profits, manage receivables, and control inventory.

The evidence suggests that the traditional accounting techniques and standard costing system of this 19th century printer evolved into an intricate accounting information system as the need for more sophisticated methods of controlling costs and managing the increasingly complex operations emerged. This broader scope of decision support differentiates WE&C's intricate accounting information system from the traditional cost accounting system.

Future research is needed to determine whether the types of decision aids used by WE&C were industry-wide phenomena or unique to this particular firm. In addition, relatively little is known about the uniform costing movement of the late 19th century American printing industry and whether such decision aids were inherent in the movement. Determination as to industry-wide use of such decision aids and their relationship to uniform costing could provide valuable insights into late 19th century managerial accounting.

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INTERNAL AUDIT AT THE HISTORICAL HUDSON'S BAY COMPANY: A CHALLENGE TO ACCEPTED HISTORY

Abstract: The accepted history of managerial internal audit is that its origins are in financial and compliance auditing. Managerial was added after firms started to expand geographically or into other businesses. That expansion increased complexity and created problems for managers which the internal auditor assisted in solving with managerial audits. Contrary to that two stage development, something comparable to managerial internal audit was being practiced by the Hudson's Bay Company in the form of inspections as early as 1871. Rather than in financial and compliance auditing, these inspections had their geneses in the desire of the senior manager and the committee (board of directors) for additional information on the fur trade and retail operations. This paper will describe the inspection function at the historical Hudson's Bay Company, the circumstances leading to the development of this function, and how it complemented other controls.

INTRODUCTION

Generally, internal audit is thought to have started with financial and compliance audits. It arose as the growth and increasing complexity of firms in the early 20th century stretched the capabilities of managers and thereby created efficiency and effectiveness problems. By adding managerial activities to financial and compliance, internal audits were recognized as a means of assisting overburdened managers.¹ This two stage history — first of financial and compliance, then of

¹ Managerial internal audits are considered to be the same as those described as comprehensive, efficiency and effectiveness, modern, operational, and value for money.

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managerial internal audit — has been accepted in the literature on that subject. However, a recent examination of the archives of the Hudson's Bay Company (HBCA)² has suggested that the two stage history of internal audit may not be universally applicable. Inspections very similar to managerial internal audits were conducted at the HBC in 1871 — about 50 years prior to the generally recognized commencement of managerial internal audits. Moreover, these inspections were introduced by the HBC at a time when the complexity of the organization was actually decreasing.

The purpose of this paper, therefore, is to challenge the accepted history of internal audit by showing that something comparable to managerial internal audit had developed earlier at the Hudson's Bay Company (HBC) for reasons different from those advanced in the conventional history of internal audit. The next section discusses in greater detail the accepted history of internal audit. Subsequent sections put forth the background and the development of inspections at the HBC, respectively. The inspection function at the HBC is then assessed and compared to managerial internal audit using a contemporary definition. The final section contains the concluding comments.

THE ACCEPTED HISTORY OF INTERNAL AUDIT

Managerial internal audit appears to have been classified as a 20th century management innovation [Flesher, 1977, p. 190; Brink and Witt, 1982, pp. 5-6]. It has been defined as:

... a systematic, objective appraisal by internal auditors of the diverse operations and controls within an organization to determine whether (1) financial and operational information is accurate and reliable, (2) risks to the enterprise are identified and minimized, (3) external regulations and acceptable internal policies and procedures are followed, (4) satisfactory standards are met, (5) resources are used efficiently and economically, and (6) the organization's objectives are effectively achieved - all for the purpose of assisting members of the organization in the effective discharge

²The archive covers the entire company history except for the last 30 years, which are still confidential. Researchers access the 1670 to (approximately) 1914 materials via microfilm which can be borrowed. Most post-1914 materials are restricted in their use because they have not been catalogued and microfilmed.

of their responsibilities [Sawyer, 1988, p. 7; Sawyer and Vinten, 1996, p. 25].

This definition — which “seeks to focus on the broad scope and objectives of internal auditing and to encapsulate its comprehensive approach” — alludes to the two stages which have been noted by numerous authors. Generally, the two stages have been expressed as financial (and compliance) audit followed by the addition of managerial audit. In an article entitled “Modernization of Internal Audit” Flesher [1977] noted:

... the old concept of internal auditing can be compared to a form of insurance. The major objective was to discover fraud much more quickly than it could be discovered by a public accountant during an annual audit. The modern concept of internal auditing is that of an “arm of management”. No longer is the internal auditor strictly a policeman, the modern internal auditor is an integral link in the management process [p. 190].

Similarly, in their textbook *Modern Internal Auditing: Appraising Operations and Controls*, Brink and Witt [1982, pp. 5-6] recognized two stages to the development of internal audit. They noted that the earliest concerns of management were whether: the assets of the organization were being properly protected, company procedures and policies were being complied with, and the financial records were being accurately maintained. At the same time there were concerns with fraud detection and the coordination of internal auditing with the work of the external auditor. Brink and Witt also noted that as operations increased in volume and complexity, new pressures were placed on senior management. To assist managers, internal auditors took on a broader and more management-oriented set of activities.

Chambers [1980] documented the same shift in the focus of internal audit by examining The Institute of Internal Auditors' Statement of Responsibilities of the Internal Auditor, namely:

The 1947 and 1957 editions carried the clause ‘internal auditing ... (reviews) accounting, financial and other operations’ but only the 1947 edition included the clause ‘internal auditing ... deals primarily with accounting and financial matters but ... may also properly deal with matters of an operating nature’. By 1971 both of these clauses had been dropped in favor of ‘Internal auditing ... (reviews) operations’. So while in 1947 the accent was on financial accounting matters,

by 1957 there was a balance between these matters and the audit of other operations (usually called 'operational auditing'); and by 1971 financial matters were simply regarded as one of many operations, not meriting special mention [p. 275].

Sawyer [1979] also recognized the importance of The Institute of Internal Auditors in the development of managerial internal audit, namely:

Victor Z. Brink's recollections of internal auditing reach back to the beginning of a discipline which I like to think of as management-oriented internal auditing. He was there [1941] when it crawled out of the cocoon of financial ticking and toting and first spread its wings. The discipline might have had its origin in the ancient verification of financial transactions, but it started to mature when Brink and a few others brought forth The Institute of Internal Auditors, Inc. [p. 23].

In one of the few historical studies on internal audit, Boockholdt [1983] examined the origins of internal audit in 19th century U.S. railways. He attributed the introduction of financial internal audit to the growth in size and the westward movement of railways [p.70]. More specifically, as the railway companies began to conduct large-scale financial transactions at widely dispersed geographical locations in the 1840s, they appointed internal auditors to monitor the processing of financial transactions. In the U.K., Pollins [1957] reproduced a letter of 1867 from the external auditors to the shareholders to reveal the internal audit activities at the London & North Western Railway. The letter stated:

That the main check, as between the Board and its numerous servants, devolves of course on the large establishment at Euston called the Audit Office, headed by a responsible Officer, who has eight in-door assistants, seven out-door inspectors, and a staff of 127 clerks. . . . The verification made by the Auditors, assisted by the Public Accountants, is therefore as between the Board and the Shareholders — its object being to ensure that the Books are kept upon correct principles, that the published accounts are in accordance therewith, and that they honestly lay bare to the proprietors the true condition of the undertaking [pp. 16-17].

The letter indicated that the "Audit Office" was involved with auditing payment vouchers, debenture registers, stock and

share registers, dividend accounts, cash balances, station revenues, and rents due. The focus was financial and not managerial.

Managerial internal audit did not gain much recognition until the establishment of The Institute of Internal Auditors in 1941. It has been accepted that in the early 20th century many American firms expanded their operations in terms of geography, product lines, and functions — that is, they became vertically integrated — which led to large and complex organizations that were difficult to manage. Chandler [1962, pp. 9-11] noted that to make these firms more manageable, a decentralized structure was implemented with the following components: (1) a general office at the top (with general executives and staff specialists) which coordinated, appraised, and planned goals and policies and allocated resources for a number of quasi-autonomous, fairly self contained divisions; and (2) divisions for carrying out the strategic decisions of the general office. The divisions consisted of: (a) a central office that administered a number of departments, each with functional responsibilities such as manufacturing and selling; (b) department headquarters which in turn coordinated, appraised, and planned for a number of field units; and (c) field units which were responsible for plants and sales offices.

As part of the appraisal function at these complex early 20th century firms, it was inferred by Williamson [1975] that the general offices of these firms (which were described by Chandler [1962]), sent internal auditors to the divisions to assess financial and operational controls. Internal audit was an integral and complementary part of the control systems which consisted of strategies, plans, and budgets (as *ex ante* controls) and operating statements, return on investment calculations, and various operating reports (as *ex post* controls). As the general office executives were isolated from the divisions, internal audit was important for validating the divisional performance contained in abstract financial reports [Williamson, 1975, pp. 146-148]. More specifically, Williamson [1975] suggested that the internal audit function produced information not available to open-market transactions:

The auditing advantage of internal organization in relation to interfirm organization is attributable to constitutional and incentive differences which operate in favor of the internal mode. An external auditor is typically constrained to review written records and documents and in other respects restrict the scope of

his investigation to clearly pertinent matters. An internal auditor, by contrast, has greater freedom of action, both to include less formal evidence and to explore the byways into which his investigation leads [pp. 29-30].

Penno [1991, p. 521] adds an important proviso for maintaining internal audit objectivity. Penno demonstrates that to be objective the internal audit unit must report to a sufficiently high level in the organizational hierarchy. With the internal audit unit reporting to a low level in the hierarchy, there would be a tendency for biasing in favor of the manager overseeing the internal audit unit. Reporting to the chief executive officer and/or the audit committee of the board leads to fewer biases and more objective findings.

It was noted that The Institute of Internal Auditors had a significant effect on the development of managerial internal audit. Thus, the recent change in its definition of internal audit is likely to be significant [Krogstad et al., 1999]. Its previous definition and the new definition are contained in Exhibit 1. Although this is the profession's definition, and likely self-serving, it is based on extensive surveys of practice. The new definition could be ushering in a third stage of internal auditing, but at present it is too early to substantiate this. The striking difference is that the previous definition sees internal audit as an appraisal function within the organization, whereas the new definition sees internal audit as concerned with assurance and consulting services. The previous definition presupposed that internal auditors examined and evaluated activities. The new definition gives internal auditors the general responsibility for adding value by improving an organization's activities. The previous definition had auditors assisting members of the organization in the discharge their responsibilities; the new definition is more general in helping the organization accomplish its objectives. With the previous definition, internal auditors provided analyses, appraisals, recommendations, and information about activities. The new definition has internal auditors bringing a systematic, disciplined approach to evaluating and improving the effectiveness of risk management, control, and governance processes [Professional Guidance, 2000].

To summarize, the previous definition or what has been called managerial internal audit assumed that internal audit was an extension of management. This was a necessary role as financial information was incomplete for effective management. The new definition has internal auditors as partners with senior management in developing systems. Financial

EXHIBIT 1

Internal Auditing Defined

The Institute of Internal Auditors' Definitions of Internal Audit

Previous Definition. Internal auditing is an independent appraisal function established within an organization to examine and evaluate its activities as a service to the organization. The objective of internal auditing is to assist members of the organization in the effective discharge of their responsibilities. To this end, internal auditing furnishes them with analyses, appraisals, recommendations, counsel, and information concerning the activities reviewed. The audit objective includes promoting the effective control at reasonable cost.

New Definition. Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

Source: Krogstad et al. [1999, p.29]

information may still be incomplete, but with low cost computing and enterprise resource planning systems (such as SAP and PeopleSoft), managers have many other sources of information at their disposal to address that incompleteness. Consequently, internal audit as a profession is being forced to find a new mandate.

This section has noted that the accepted history of internal audit has exhibited an interaction between the need for internal audit by organizations and the provision of internal audit by the profession. With that context, the paper will now explain the background to inspections and their development at the HBC, both of which predate the internal audit profession.

BACKGROUND TO THE INSPECTIONS

The HBC, the oldest commercial organization in the world that continues in its original line of business [Milgrom and Roberts, 1992, p. 6], was established by the King of England in 1670. Immediately upon being granted a charter, the HBC located posts at the mouths of rivers flowing into the Hudson Bay, in the northeast part of North America. The HBC was successful in pursuing a strategy of waiting at bayside posts for the aborigines to come down those rivers annually to barter their furs for European goods. Competition later emerged from "pedlars" who were willing to go inland from Montreal to the

south and west of the Hudson Bay to save the aborigines long and arduous trips. To meet this competition the HBC, in 1774, established its first inland post. This was followed by many other posts in the next decades until the strategy of its trade changed from bayside to inland posts.

In pursuing the inland trade strategy, the HBC was competing with various trading partnerships from Montreal who eventually joined together to form the North West Company (NWC). The competition was described as peaceful coexistence [Carlos, 1981, pp. 778-781]. There was no collusion, and predatory competition did not occur until 1816 [Carlos, 1982, pp. 176-181]. Then in 1821, with both companies suffering, the HBC merged with the NWC, retaining the HBC name [ibid., 1982, pp. 180-181]. After the merger, George Simpson was put in charge of the Northern Department, while William Williams was responsible for the other, smaller Southern Department. In a few years, Governor Simpson was responsible for all North American operations, a responsibility he retained until his death in 1860.

Management was challenged during this period because of three types of uncertainty: (1) inland travel on rivers and lakes, (2) trade conditions, and (3) "living off the land". These categories related to major groupings of parts, activities or means-end chains in the fur-trade operation.

Inland travel activities were particularly complicated. Ships from London had to be unloaded and the trade goods and supplies stored in warehouses at the ports or directly loaded into canoes and boats for shipment to posts. The trips took weeks or months, and for each day there were demanding tasks in order to maneuver man-powered canoes or boats along rocky-bottomed rivers and lakes. These trips often required portages or the carrying of the canoes, boats, and their contents around rapids or waterfalls, or from one water system to another. Portages were physically demanding on the men. In short, inland travel was problematic for three important reasons. First, all employee actions were unobservable. Consequently, effort and diligence were not always explicitly known. Second, employees were subject to opportunistic behavior. They were not always willing to give priority to the HBC's interests. For example, after 1774 when competition forced the HBC to move inland, employees exerted all forms of effort in their resistance to go inland [Burley, 1993, p. 5]. One of HBC inland governors noted in 1820 "that there is a great want of subordination in general amongst the people" [transcribed by Rich, 1938, p. 51]. Third,

there was environmental uncertainty from random events. The arrival times at various posts could not be predicted as weather and environmental factors interfered with schedules. Moreover, the exact distances and best water routes between posts were uncertain.

Trade conditions were uncertain because of the lack of a monetary system. A large number of furs were traded for an even larger number of European trade goods. Prior to the move inland, North American aborigines had developed a system of middlemen for transporting furs to bayside posts. The distant aborigines who did the trapping would often trade with those who made the trip [Innis, 1970, pp. 137-139]. However, this system of middlemen started to unravel when the HBC moved inland and dealt directly with aboriginal trappers. Trade was further complicated by the larger number of different aboriginal groups with different languages and customs. Moreover, the behaviors of traders were not observable, and thus it could not be ensured that they acted in the best interests of the HBC.

There was no infrastructure inland, and in contrast to posts located on the Bay, all food and clothing requirements could not be sent from London because of high inland transportation costs. To pursue inland trade, living off the land was necessary, but highly uncertain. Food and clothing had to be supplied locally at dozens of posts either by HBC employees or through trade. Hunting, fishing, and farming were also pursued, subject to transformation uncertainty as employee behavior could not be observed. Weather was always crucial for these primary activities, but it varied significantly according to seasonal conditions and geographical location. Hunting and fishing were precarious because of the unpredictable migration patterns of prey. In addition, the short growing seasons and infertile soils (especially at some northern posts) yielded poor and uncertain crops.

To manage the North American fur trade operation in the face of this extreme uncertainty, Simpson fully implemented and improved upon the accounting and control practices introduced by the committee of the HBC (comparable to a modern-day board of directors). These practices were described by the committee as "a Radical Change in the System of Carrying on the Trade" [HBCA, reels 6 and 39]. Although the inland trade strategy commenced in 1774, the accounting and controls did not reflect the new strategy until 1810 when profitability problems, aggravated by external factors, incited radical change [Spraaakman, 2000, pp. 12-13].

The accounting and control practices perfected by Simpson in the 1820s can be described as mechanisms for directing and monitoring operations [Roy and Spraakman, 1996, pp. 64-69]. The five mechanisms for directing operations – organizational structure, outfits, indents, councils, and standards – will be briefly examined in turn. The monitoring mechanisms will be discussed thereafter. First, the organizational structure of the HBC was hierarchical with the shareholders electing a committee of seven members plus the London-based governor and deputy governor. The committee appointed the inland governors. For the North American operation, individual trading posts in the same vicinity were grouped into districts for managing. In turn, districts were placed geographically into departments. The departments were headed by governors, as noted, while districts were generally headed by chief factors; posts were generally directed by chief traders, while the smaller posts were the responsibility of clerks. Second, the HBC trade practices centered on the annual outfit. Trade goods and supplies comprising the outfit were sent from London at the beginning of the outfit year. Third, an indent or list of trade goods and supplies requested for the next outfit was sent to the committee in London. The HBC used a series of indents to plan and coordinate the movement of trade goods and supplies over a two or three-year cycle. Fourth, departmental chief factors met annually at convenient locations with the inland governor, and perhaps some chief traders, to interpret instructions from the committee and to establish rules and regulations for the conduct of the business. With communications and transportation being slow and expensive, these councils were important for establishing direction and for achieving coordination. Fifth, given the existence of a barter system there was a standard of trade which each post developed to ensure that the furs received would cover all costs and generate a profit. The standards of trade related all furs and all trade goods with a prime beaver pelt (designated a “made beaver”). These standards provided explicit instructions on the furs to be obtained for each trade good as well as for an entire outfit.

The six monitoring mechanisms were: inventory records, accounting records, journals, operational data, councils, and the annual review of operations [Roy and Spraakman, 1996, pp. 69-74]. First, inventory records were detailed and kept for all trade goods and supplies in monetary and physical terms with reference to the actual post or depot location. In movement from port to depot to post considerable effort was devoted to

tracking inventory with packing slips, invoices, and other records. Second, accounting records furnished the committee in London with the cost of furs from each district. This district record was a "balance sheet" which was actually a ledger account and part of the debit and credit bookkeeping system. Specifically, it was a means of closing the district books at the end of the outfit year, and thus a culmination of the year's activities for the district and its posts. With the scale of prices (a list of recent market prices for furs provided by the committee), the profit (or loss) of the district could be estimated prior to the actual sale of furs. The balance sheet contained the following (abbreviated) debit and credit items:

Debits

Beginning inventory
Shipments received
Servant wages

Profit (if one)
Total debits

Credits

Inventory supplied to other districts
Servant debts, and advances
Sale value of furs (based on the scale of prices)

Loss (if one)
Total credits.

Third, journals — the narrative records of daily occurrences — were maintained by the senior employee at each post. The journals recorded what work was done by employees each day, the names of aborigines coming to trade, the arrival of the outfit and shipments of the furs [HBCA, reels 1M116 and 3M224]. The purpose was to provide the committee with a "better understanding" of the activities at posts. Fourth, during Simpson's governorship operational data were important. Distances and load weights were recorded with the intent of improving efficiencies. Fifth, at the annual council meetings the governor and chief factors reviewed the performance of posts and shared operational information. Sixth, Simpson gathered information about operations during his legendary visits to posts. During all but three of the thirty-nine years he spent in charge of the fur trade, Simpson crossed the North American continent [Newman, 1987, p.304]. These visits provided important sources of information for his annual reports to the committee. The actual performance of each post, and district, was compared to that expected for the year, expected for future years, and achieved in past years.

In summary, during the period from 1821 to 1860 the directing and monitoring mechanisms of the HBC emphasized operational planning. If there was a single description of the approach to the HBC's management during that period, it

would be “getting the inventory to the right place at the right time for profitable trade”.

THE DEVELOPMENT OF INSPECTIONS

After Simpson's death in 1860, the annual tours were maintained to a lesser extent by his successors. This was due in part to Simpson's successors Dallas (1860 to 1864) and Mactavish (1864 to 1870) being less rigorous in their scrutiny and inspection of fur posts [MacKay, 1936, p. 284]. They did not have his extraordinary energy. This reduction in ex post control, plus increased competition because of the modernization of transportation, soon resulted in operational problems. These were discussed in a report dated 1871 by Cyril Graham, who had been hired by the committee to examine the fur trade, the relations between the company and its officers, and general business prospects [HBCA, reel 733]. As a partial solution to the operational problems in the fur trade, inspections were formally established in 1871 with the creation of four inspecting chief factor positions [HBCA, reel 526]. Their duties included visiting posts and districts, examining the books, reporting on the condition of facilities, evaluating personnel, and making recommendations for improvements [Ray, 1990, p.15]. At the same time, the structure of chief factors and chief traders reporting to the commissioner (the new title for the inland governor) was expanded by two more positions. The managers subordinate to the commissioner now included, in descending order: inspecting chief factor, chief factor, factor, chief trader, and junior chief trader [HBCA, reel 3M232].

Initially the inspecting chief factors had line authority over districts and reported to the commissioner on fur trading posts and districts, and, later as they were opened, on the retail saleshops. As they were more senior than any of the post or district managers whose operations were being inspected, the inspecting chief factors were regarded as authority threats [Ray, 1990, p. 71]. Later, the title was changed to inspecting officers with the elimination of their authority over post, saleshop, and district managers. In a memorandum to the committee in 1888 the commissioner described the differences between two positions:

I would call attention to the difference between an inspecting chief factor and the present inspecting officers. The inspecting chief factor used to go into a district clothed with authority and as the senior of the

officer in charge. This undoubtedly had the effect of undermining the authority of the officer in charge of the district, the maintenance of which I believe to be vital. At present the inspecting officers, bearing no additional rank in virtue of their office as Inspectors, visit the district or post and in no way interfere with authority of the officer in charge. Their duty is to report to the commissioner and for the commissioner to take actions. The difference between action being taken by the commissioner or by the inspecting officers being very great in the eyes of the officers. In the one case there is hearty concurrence and in the other suspicion and jealousy [HBCA, reel 745].

The responsibilities (or scheme) of the inspecting officers as at 1886, which are presented in Exhibit 2, are strikingly similar to the duties of modern-day managerial internal auditors. This list of responsibilities was attached to the aforementioned memorandum from the commissioner to the committee [HBCA, reel 3M224]. Moreover, virtually the same checklist was used with inspections for the next three decades. The emphasis of inspections was neither financial nor compliance as expected by the accepted internal audit history. Instead the initial emphasis was on managerial auditing. There were two reasons for this. First, the persons completing the inspections were seasoned managers. Second, the financial component was relatively small; of the eight sections to the scheme, only one dealt with the accounts. Moreover, even the accounting section was approached from a managerial perspective. For example, a typical inspector made the following observations in the first decade of the 20th century:

The acting manager is . . . weak in collections, and showing a want of discrimination in granting credit . . . Too long credit is given. Taken generally the accounts are unsatisfactory, and the collection of them will require immediate attention, while great caution in granting further credit will require to be exercised [HBCA, reel 525].

The other seven sections of the scheme dealt with responsibilities of the manager in charge, such as buildings, stock, and furs. In addition, the tone was managerial. For example, in the "General" section, points one and two read, "can trade of post be improved", and "can additional posts be opened or present closed with advantage", respectively.

It is important to note that inspectors were being intro-

EXHIBIT 2

Scheme for Inspections, 1886

- a. Buildings
 - 1. condition.
 - 2. situation.
 - 3. suitability.
- b. Stock
 - 1. verification of inventory.
 - 2. suitability.
 - 3. sufficiency.
 - 4. condition.
 - 5. time of turn-over.
 - 6. saleable stock (list attached) with suggestion for disposal.
 - 7. live stock.
- c. Furs
 - 1. quality.
 - 2. is post obtaining full portion of best skins.
 - 3. is the trade affected by tariff.
 - 4. increase or decrease of fur-bearing animals.
- d. Accounts
 - 1. cash book.
 - 2. examination and classification of outstanding balances (with list attached and marginal notes). Is each account current, if not, is debtor a regular customer.
 - 3. verification of debts.
 - 4. securities (with list attached and remarks).
 - 5. capital employed. How often turned over.
 - 6. percentage of apparent gain to capital.
 - 7. audit.
- e. Expenses
 - 1. mess expenses or commutation.
 - 2. gratuities to servants and [aborigines].
 - 3. miscellaneous expenses.
 - 4. possibility of reduction of expenses.
 - 5. transport and cost-landed.
- f. Personal
 - 1. business capability, suitability and personal character of all attached to post.
- g. General
 - 1. can trade of post be improved.
 - 2. can additional posts be opened or present closed with advantage.
 - 3. opposition.
 - 4. division of territory.
 - 5. route of goods and return.
 - 6. remarks on general character of business with anything met under preceding heads.
 - 7. conditions of [aborigines].
 - 8. list of outposts.
 - 9. when last visited by officer in charge of district.
- h. Suggestions

Source: HBCA [reel 3M224].

duced while the HBC was becoming easier to manage because of improvements in communications and transportation instigated by the coming of steamboats, railroads, and the telegraph. The HBC went along with this modernization which, after 1860, gradually reduced the three forms of uncertainty which impacted on its operations. First, inland travel by birch bark canoe and crude boat was replaced by more predictable and less expensive steamboat and railway transportation. Second, the HBC no longer had to provide food and clothing for its employees as an infrastructure developed across western Canada for those purposes. Third, a monetary system replaced bartering.

Modernization caused the HBC to be a simpler business to manage, and led to changes in the way it directed and monitored its operations [Sprakman and Davidson, 1998, pp. 83-93]. First, with a relatively simple business (despite expansion into retail saleshops), the HBC evolved to a flatter and more centralized structure with the commissioner firmly in charge. The department level was eliminated and districts were streamlined through the consolidation of posts. Communications and transportation improvements allowed the commissioner to be more directly involved in the affairs of the less uncomplicated posts and saleshops. Consequently, the number of managers (chief factors and chief traders) declined. In 1887, the commissioner gave as the reason for this decline, "the requirements of the service would be met by a smaller number of officers than at present hold commissions" [HBCA, reel 3M232].

Second, with better communications and transportation, and the development of local Canadian and American suppliers, the HBC was no longer dependent on the annual outfits from London. Third and relatedly, indents became less important because it was unnecessary to plan months or years in advance for trade goods and supplies. Ordering could be done from local or North American suppliers as needed, or just before needed. Indents were used primarily for ordering items from England, which was a decreasing portion of the total order of trade goods and supplies [HBCA, reels 3M230, 3M232]. Fourth, improvements in communications and transportation made councils unnecessary as the commissioner could easily contact posts or saleshops to coordinate the shipment of trade goods, supplies and furs, assign employees, and introduce rules and regulations. Fifth, the standard of trade was no longer needed as market prices existed for furs and trade goods.

Monitoring mechanisms also changed. First, with inventory

more readily available and the one to two year wait no longer necessary, the importance of inventory decreased along with the importance placed on inventory records. Second, the financial records underwent dramatic changes. Instead of showing debits on one side and credits on the other with profit (debit) or loss (credit) as the balancing item, the balance sheet evolved into the trading account with the following line items in descending order: sales, direct costs, gross margin, expenses, and apparent gain. The HBC used these trading accounts to manage posts and salesshops as to their capital employed and their return on capital employed [HBCA, reel 508].

There was another related change to the accounting records. The commissioner in 1891 proposed to change the accounting from outfit to fiscal year end [HBCA, reel 508]. When using outfit years, the books were not closed until after the sale of all furs in London, which was one year or longer after the May 31 year end. This also meant that the district accounting reports had to be completed at the London office. The resulting accounting system was complicated and expensive. However, more frequent sales led to annual reporting which also allowed the district accounting reports to be completed in Winnipeg; this gave the commissioner more frequent information which allowed for decision making to be more centralized with him.

Third, operational data became less important for two reasons: financial information became more important, and the councils were discontinued, thereby eliminating the opportunity to discuss operational data. Fourth, posts, salesshops, and districts continued to prepare annual reports, which tended to be explanations of financial statement line items and responses to inspector reports, rather than assessments of operations. The in-depth discussions that the committee had in their annual letters to posts were replaced with discussions of inspection reports. Relatedly, the annual reports submitted by the commissioner became largely discussions of operating statement line items. Fifth, the number and frequency of council meetings declined after 1860; the last took place in 1887. There was a marked decline in the sharing of information and experience. Sixth, journals were still prepared, but reviewed less frequently. There were fewer managers to review the journals.

In summary, a new system of management developed during the period 1860 to 1914. It can be best described as management by numbers. The structure was flattened and authority was centralized. Indents, outfits, inventory records, operational data, and standards were de-emphasized. Councils

were discontinued as the commissioner did not need them for directing or coordinating purposes. Instead of elaborate ex ante and ex post management mechanisms, the system was simplified. The commissioner directed the posts and salesshops with simple indents and outfits, and fewer standards, but with explicit feedback. The feedback came in two parts. The main source was detailed post and salesshop trading accounts, which included the capital employed and the return on capital employed. In addition, the HBC employed inspecting officers to regularly visit posts and salesshops in order to report to the commissioner on operations.

AN ASSESSMENT OF INSPECTIONS

Sawyer's [1988, p. 7] and Sawyer and Vinten's [1996, p. 25] definition of managerial internal audit, discussed in the second section of this paper, is now used to assess the HBC's inspections from 1871 to 1914. More specifically, this definition provides seven criteria for assessing the inspections.

(1) *Systematic and objective appraisal*. Inspectors only proceeded to posts or salesshops when requested by the commissioner [HBCA, reel 745]. Their duties were to give complete reports to the commissioner using for fur posts the eight ("a" to "h") headings in the scheme (in Exhibit 2), carefully separating facts from opinions or suggestions. Sections "a" to "g" dealt with factual conditions, while section "h" contained the "suggestions". For efficiency, inspectors used pre-printed forms that allowed them to write the number (e.g., item 1 from section a) rather than the actual description (for example, for item 1 in section a, buildings, the sub-description was "condition") with their assessments.

The inspection steps were established a priori with concern for a systematic process. Inspection reports were shared with the person in charge of the post or salesshop, and then sent to the more senior managers. For the fur posts, district managers made recommendations for remedying shortcomings, to which the commissioner added his own recommendations in a letter attached to the copy of the inspection report sent to the committee. An example is the commissioner's letter of 1893 discussing the inspections of the Athabasca and McKenzie River districts [HBCA, reel 820]. The accompanying ten-page letter to the two district managers contained inspection summaries for the district office and fourteen posts, plus a comparative state-

ment of aboriginal debts which were problematic at some of the posts. Judging by their comments in return letters, the committee carefully read the commissioner's letters discussing inspection reports as well as the actual inspection reports [e.g., HBCA, reels 3M177 and 3M178].

Similarly, the saleshop inspection reports were discussed with the managers in charge [HBCA, reels 859, 860, 863]. These reports were also submitted to the commissioner, who in a letter to the committee, explained how the identified shortcomings would be remedied. These letters and copies of the reports were then sent to the committee, which subsequently responded to the commissioner in terms of directions, or requests for more information.

To ensure knowledgeable appraisals, inspectors tended to be experienced post or district managers. However, there was a recognition that an inspector could not "independently" inspect posts under his own responsibility. Therefore, the inspectors tended to inspect posts for which they had no responsibility. Often, two inspectors were assigned to work together. One recommended combination was "an old fur trade officer such as Mr. Hardisty . . . [and] . . . Mr. Beaton who is an accountant and acquainted with the modern system of trading" [HBCA, reel 745].

The inspectors reported to the commissioner. In a letter to the committee in 1907, the commissioner described the inspection staff as consisting of three positions: a chief inspecting officer, an inspector of fur trade posts, and an inspector of saleshops [HBCA, reel 842]. The skill set of inspectors was described by the commissioner in recommending an employee for the job of fur post inspector:

Mr. Tremayne's experience in various departments of the Company's service has been such as to give him a good general knowledge of detail, and while in charge of Lake Superior District he has shown himself to be economical and discretionary in his methods. That district, in view of the keen competition obtaining, has been a good training ground, and the knowledge of transportation matters acquired there and previously in British Columbia district are of value in the work which it is proposed to assign him. . . . On the other hand he is young and vigorous for traveling, and it is believed his visits to fur trade posts and districts would have a healthy influence, while his knowledge of general detail would render his services useful in the department when not so engaged [ibid.].

(2) *Accuracy and reliability of information.* Inspectors were concerned with the care with which the post books were maintained. Accurate and reliable books for trade goods, supplies, credit to aborigines, and fur inventories were deemed fundamental to the success of the Company.

(3) *Risk identified and minimized.* By approaching their work from the perspective of what was best for the Company, the inspectors identified issues regarding competition, fur availability, and other matters that would have a negative impact, and warned the commissioner.

(4) *External regulations and acceptable internal practices.* There were minimal external regulations for the HBC. However, the HBC had documented "Rules and Regulations" specifying the desired practices for both the fur posts [HBCA, reel 3M224] and the saleshops [HBCA, reel 863]. The committee and commissioner were explicit that the rules and regulations should be followed. Inspectors used these rules and regulations as a checklist for judging actual practices.

(5) *Satisfactory standards are met.* In addition to being used by the inspectors as a basis for judging actual practices, the rules and regulations noted above were used as the basis for expectations or standards. For example, item 42 in the 1887 "Rules and Regulations" specified that, "officers of districts shall visit all posts within their districts at least once a year" [HBCA, reel 3M224]. This was typical of the rules and regulations. The acceptable practice was for the officer in charge to visit the posts; the standard was that the visits must occur once a year.

(6) *Resources are used efficiently and economically.* The headings in Exhibit 2 were essentially a list of the resources used by a post. Moreover, fur posts and saleshops were allocated capital and evaluated with return on capital employed. Often inspectors did the return on capital employed calculations for the posts and saleshops, and made suggestions to improve profitability. In regard to the use of resources, the commissioner described the inspections as a means of exerting efficient control over operations [HBCA, reel 967]. Inspectors were also used in conjunction with the reorganization of districts and posts to systematically reduce expenses [HBCA, reels 820 and 821].

(7) *The organization's objectives are effectively achieved.* As a shareholder-owned, profit pursuing organization, the HBC's objectives emphasized the pursuit of profits and cost reductions. Inspections reflected these objectives. Inspectors were used when the commissioner and/or committee were contemplating structural changes, or when they had concerns about the profitability of a saleshop, post, or district.

A review of the actual inspection reports revealed that the managerial emphasis was blatant. The 1886 inspection reports for the Cumberland district provided examples [HBCA, reel 3M224]. The seven posts in the district were inspected, and a report on each was prepared and submitted to the commissioner. Each item from the scheme in Exhibit 2 was addressed, with the last section (h), containing suggestions for improvements which were cross referenced with earlier findings. Not every finding of deficiency led to a suggestion. The five suggestions for the Grand Rapids post are shown in Exhibit 3.

EXHIBIT 3 **Suggestions by Inspecting Officers, 1886**

1. Building at west-end of Portage should be maintained in case of opposition or any change in the Trade. It is stated that no Patent has been issued, but the Company's location should be secured. The ownership of the W. & WT. Co. is not known, it would do well to have this explained in case of emergency and to avoid trouble.
2. The exact cost landed of goods should be ascertained. Mr. McLean [the person in charge of the post] should make his own requisition (subject to the approval of the Officer in Charge) according to what he has in stock and the requirements of his trade; and after taking Inventory.
3. A Cash Book should be kept as well as an account of all expenses. The Profit of the Post should be ascertained at Cumberland. Mr. McLean appears to be anxious to be judged by results, of which at present he is ignorant.
4. An attempt might be made to increase the Fur Trade by giving assistance to Mr. McLean during the Winter - He being alone cannot look after it. Judiciously giving small debts to Fur Hunters in the early autumn might also help to increase the Returns especially if sufficient leather were at the Post.
5. The overstock should be struck off the Requisition at Cumberland. A list has been furnished to the Officer in Charge.

Source: HBCA [reel 3M224].

Another example of the managerial orientation of the inspection reports was revealed in a letter from the commissioner to the committee in 1899 [HBCA, reel 820]. The topic of the letter was the reorganization of five fur trade districts and their nineteen posts. In order to have an effective reorganization, the inspecting officer was asked by the commissioner to address questions relating to the amalgamation of districts with a view to more economical management; purchasing of furs and the use of valuation tariffs; aboriginal debts; and cash and trading tariffs. The inspecting officer's answers to the four questions were developed from an inspection of each post with similar criteria to that in Exhibit 2. Resulting reports were summarized into twenty pages of notes which were sent by the commissioner to the committee along with a typed letter from the inspecting officer to the commissioner with detailed, quantified answers to the four questions.

The HBC differentiated between inspectors and auditors. Inspectors were employees; auditors were not. Auditors verified the accuracy of accounts [HBCA, reel 822]. Part-time auditors were used from the late 1880s until 1911 to verify certain accounts [HBCA, reel 813]. The auditor at the Winnipeg office was the manager for the local Bank of Montreal branch, the HBC's bank. His duties in relation to the HBC were to verify the cash transactions, month-end statements, and inventories. The HBC also used the managers or the accountants at the Bank of Montreal branches in Vancouver, Victoria, and Montreal to verify account balances. These auditors reported to the committee in London and their duties were coordinated with the London auditor. In 1911 Marwick Mitchell & Co., a Scottish chartered accounting firm with offices in numerous U.S. cities as well as Montreal and Winnipeg, was hired to replace the part-time auditors. The HBC's London auditor had been employed by the committee from 1866 to "audit" the balance sheet and related financial statements [HBCA, reels 19 and 508].

This assessment of the HBC's inspection activities from 1871 to 1914 suggests that the inspections were comparable to modern definitions managerial internal audits.

CONCLUDING COMMENTS

Inspections were an integral part of the management of the HBC from 1871 until at least 1914. They were managerial in orientation, and as such they were an extension of the commissioner who did not have the time to visit and inspect posts and

saleshops. Inspections were undertaken through the use of a checklist, specified by the commissioner. Financial inspection was included, but as a very secondary focus. More importantly, inspections by examining operating matters provided an alternative assessment to the financial trading accounts on how well the posts and saleshops were actually performing.

Although the development of the inspection function at the HBC appeared to be an isolated phenomenon, its genesis was not. Inspections had a comparable genesis to the development of managerial internal audits in early 20th century organizations described by Chandler [1962] and Williamson [1975]. The commonality was not complexity. The HBC was becoming less complex while Chandler [1962] and Williamson [1975] were dealing with increased complexity. The commonality — the use of abstract financial accounting data — meant that information on actual operations was needed for effective understanding. Thus, the inspection function was developed to compensate for the incompleteness of financial accounting information. If the commissioner could have observed his post and saleshop managers, he might not have needed inspectors. Alternatively, if the commissioner had continued to use the directing and monitoring mechanisms from the 1820 to 1860 (or Simpson) period, he might not have needed inspectors. However, by eliminating or de-emphasizing most of those directing and monitoring mechanisms in favor of instructing posts and saleshops directly with improved communications and with highly abstract trading accounts, the commissioner was required to use inspectors to truly understand the posts and saleshops. For a firm such as the HBC concerned with profits, activities had to be closely managed and controlled in order to maximize income generation.

In conclusion, the HBC inspections were developed not as a response to complexity as predicted by the accepted history of internal audit, but to compensate for the abstractness of the financial accounting data. Inspections, in other words, compensated for the low information content of the financial trading accounts. The research question that begs to be asked is, How did other organizations adjust to abstract financial accounting data? Was managerial internal audit evoked, or to compensate for the lack of information content were other controls introduced or expanded?

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SMALL-TIME ACCOUNTING: A 19TH CENTURY MEAT MERCHANT IN MAINE

Abstract: The journal of Amos K. Hersey, a 19th century meat merchant from Pembroke, Maine is examined in this paper. The accounting system used by Hersey is analyzed and compared with contemporary prescriptions for account keeping. The paper seeks to contribute to the emerging literature on the history of accounting among ordinary people. It shows how the accounts kept by Hersey reflect and illuminate several features of a local economy and society.

Largely missing from historical accounting literature are the accounts of ordinary people, those operating a sole proprietorship or simply keeping personal records of receipts and expenditures. Rather, we tend to explore the accounting records of large firms or the practices of entire cultures. In this respect, accounting historians mirror the concerns of accounting researchers in general, who also concentrate their efforts on understanding the role of accounting in the economy as a whole and emphasizing the relationship of accounting with big business and economics [Walker and Llewellyn, 2000]. Yet, there is a case to be made for studying the accounting practices of the small business, the family, and the home. This more mundane application of accounting practices may help to shed light on larger social and cultural issues. For example, Walker's [1999] work suggested that private (domestic) accountings may help maintain established social structures. Historical studies of micro-businesses allow us to achieve a better understanding of business and daily life in the past. For example, identifying what is accounted for reveals what was important or respectable: "In 1782, Jacob Bailey, characterized the Yankee Farmer (sic) as a person 'able with his own industry to make a comfortable living,

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besides discharging his tax bill, paying the midwife, and providing a plentiful and greasy dinner on Thanksgiving” [Ulrich, 1990, p. 89].

To be sure, the line differentiating the accounts of an “ordinary” person from those of a business is a fuzzy one. But it is fair to say that one is more likely to find an article on the accounting and control systems in use at General Motors in the 1950s than one about John McKay, dentist, East Washau, North Dakota, 1924-1932. We classify as “ordinary” accounts kept by a single person or family for personal reasons rather than to satisfy external users or non-family partners.

There have been some exceptions to the exclusion of the records of individuals from accounting research, including studies of the records of Quakers in Massachusetts [Fuglister and Bloom, 1991] and the ledger of Giacomo Badoer [Var, 1976]. Indeed, several academics have suggested recently that accounting research be expanded to include studies of the more everyday and small-business aspects of accounting and of its relationship to broader culture [Hopwood, 1994; Boden, 1998; Walker and Llewellyn, 2000]. Personal accounts may open a window on how a person lived and how life was organized. The frame may be crude, but it is not without significance. These accounts, supported by other sources, provide a springboard for the development of a larger history of a person and of his/her town and times, as well as insights into the individual’s financial success or failure and place in wider society.

The current research was based on a journal¹ kept by Amos K. Hersey of Pembroke, Maine. Hersey’s journal primarily documents the years during which he was a meat merchant in Pembroke and is a record not only of his primary business but also of his increasing financial distress, reflecting the declining fortunes of Pembroke itself during the late 19th century. The journal contains accountings for several aspects of the owner’s business and even of his personal life. This study builds on the transactions recorded in the journal by correlating them with information gleaned from other sources, such as history books, the U.S. census, and the knowledge of local amateur historians.

The paper begins with a review of other accounting studies that have attempted to relate the accounting records of everyday people to the economy and society in which they conducted

¹ The term “journal” is used generally here. It means a bound book in which account records appear. This is not a formal accounting journal with debits and credits.

their business. The Hersey story follows, and the paper concludes with a brief assessment of what such studies have to offer.

LITERATURE REVIEW

Personal or small business accounting research is rare. The few exceptions illustrate two broad outcomes of micro-accounting research. One is to learn how accounting was used in decision making and how transactions were recorded. The other is to use the accounting records to learn more about the world in which they were created. Accounts may be one of the few surviving records available for examining an entire culture or community and, as such, provide an important first step for further research into that world.

One example of relating accounting to the people who used it is a study by Fuglister and Bloom [1991] of the accounting records of the Quakers in West Falmouth, Massachusetts. The authors associated the simplicity of the Quaker's single-entry accounting with that of the Quaker lifestyle. For example, Fuglister and Bloom stated that Quakers used an "X" to indicate settlement of previously recorded debts and that non-Quakers did not. The authors believed this to be evidence of the Quakers' simplicity and honesty. Though the authors' conclusion is plausible, we believe this practice was common to others besides the Quakers. For example, the day book of a blacksmith in 19th century Maine,² and the diary of Martha Ballard, a 17th century Maine midwife [Ulrich, 1991], both show that an "X" indicated the settlement in cash or in kind (barter transactions were common) of services previously rendered or debts incurred. The "X" was used among people whose business operations were so small that they did not keep formal records of cash but did need to keep track of amounts owed to them or to others. Upon settlement of a receivable or payable, the entry was simply checked or "Xed" off. Further confirmation of this can be found in the section on bookkeeping in *Business Man's Adviser* [1853, p. 122]: "The first book is the day book . . . When an entry is made in the Day Book which is settled by cash before it is posted in the ledger (sic), the posting may be omitted, and 'paid' written against the charge . . ." An "X" could easily be substituted for the word "Paid."

²This 1872 day book of a Maine blacksmith is located in the Special Collections Department of the University of Maine's Fogler Library.

Fuglister and Bloom [1991] noted another an interesting practice. The Quakers kept the accounting records of different business-like activities in separate books even if the activities took place in the same household. Thus, furniture-making accounts were kept separate from other family enterprises such as fishing. The midwifery accounts of Martha Ballard [Ulrich, 1991] were also kept separate from the accounts of her husband. We might speculate that it was common to keep the accounts of each individual activity separate from others. To take it a step further, was it also common knowledge that a proper accounting was a necessary condition for financial success? If so, this knowledge is likely to have come from the many books available on bookkeeping.³

Another example of an historical study of a small business enterprise is Tyson's [1988] research on J. Henry Rushton's boat-building enterprise. This concentrated on the uses of cost accounting and its relationship to prices. In his "Books of Knowledge," Rushton recorded detailed cost information, including both direct costs and some allocations of overhead costs. As competition and an economic downturn forced prices down, this cost information became more important to the entrepreneur. An important piece of American history that is illuminated through this study is the effect on the small independent businessman of the rise of mass-produced and mass-distributed products. Rushton, who began by competing the basis of purely on quality, was eventually forced to produce some lower-quality, lower-priced models in order to stay in business.

There have also been studies of the accountings of individuals. These studies resemble the current study and those mentioned above in that they use accounting to understand another culture, in this case removed in kind, but not in time. Acheson [1996], an anthropologist, has studied household accounts in Cuanajo, Michoacan, Mexico, an Indian pueblo. He found that successful (a highly relative term) households tended to agree (negotiate) on family goals and then maintain a variety of liquid funds dedicated to the achievement of those goals. When money was available, families allocated it to pools designated for specific purposes.⁴ The family placed money into a general fund

³The *Accountants' Index* of 1920 [American Institute of Accountants, 1921] devoted 23 pages to bookkeeping books, many of which were published prior to 1880.

⁴These pools were not bank accounts. They might have been money kept in separate envelopes and retained by the responsible family member. Honor kept the hands of other family members out of that envelope.

(Acheson's term) for household needs such as food. Personal funds were separated and kept for the needs and desires of an individual and no one else. Obligated funds were segregated and used only for the designated purposes. Most successful households maintained a number of obligated funds. Since many of the people in Michoacan made furniture, one obligated fund would be designated for purchasing wood. Another might be maintained for the repair and replacement of equipment. A wife with her own business would have her own obligated fund. In stark contrast, unsuccessful households tended to have only a single fund. When money was available, that fund, rather than being invested into the family business, might be raided for immediate desires. It appears that in this pueblo, budgeting and committing funds to specific purposes, in accord with negotiated family goals, led to relative financial success. And, as with the Quakers, the Indians also separated the accounting of different functions or entities for control purposes.

Carnegie [1995] examined 23 pastoral (sheep herding/shearing) operations in colonial Australia. He was interested in the use of ledgers, day books, volume records, and financial statements. Carnegie discussed various factors that might account for the adoption and the timing of the adoption of these records. The study revealed no evidence of unique accountings.

In another recent study that uses accounting as a reflection of a broader reality, Llewellyn and Walker [2000] examined accounting as practiced in the home, as well as the published recommendations for such practices, to investigate the marginalization of women and women's work. In the early part of the 20th century, women were encouraged to use budgets to control and monitor spending, to allocate disposable income to various activities, and even to engineer scientifically their cooking and cleaning chores to maximize efficiency and minimize waste [Walker, 1999]. Most of the accounting that was encouraged treated the home as a unit of consumption: an approach which ignored the value added of the work performed by the homemaker (usually a woman). Changes in social dynamics have begun to suggest the necessity of measuring the output that is produced in the home, leading some countries to attempt to place a value on that production [Walker and Llewellyn, 2000].

THE ACCOUNTS OF AMOS K. HERSEY

The current study is based on the journal of Amos Hersey. The journal is held in the Special Collections of the University of Maine's Fogler Library. Amos K. Hersey was born in Pembroke,

Maine in 1841. Hersey married Jane, an English immigrant, and had one daughter, Lydia A. in 1865. He died at age 78 in North Attleboro, Massachusetts having left Pembroke sometime around 1890. The journal contains a complete record of Hersey's business activities during the late 19th century. However, the manner in which those activities were recorded does not correspond to what one would expect based on bookkeeping manuals of the period. Hersey's surviving accounting records do not take the form of a day book, a ledger, or a cash book.

The Journal: Hersey adapted a preprinted journal for his own purposes. As preprinted, it is a sales journal. Each page has columns with the following headings: Name, Residence, Kind and Quantity, and Price (see Exhibit 1). Hersey ignored most of the preprinted headings, preferring to add columns and headings to suit his needs (note the handwritten additions in Exhibit 1 below). While the same preprinted headings appear throughout the journal, the uses to which the pages are dedicated vary widely.

EXHIBIT 1

Typical Journal Page with Preprinted and Added Headings

Date.	NAME.	Price	Residence.	Kind and Quantity.	Purpose of Use.	Price.	Prof.
March 13	J. C. Lupton	4 50 55 55	Pemb.	30 Veal 1	25 50 9 75	5 30 1	10
13	Brook	30 -	"	5 Skin 1	75	75	40
24	H. L. Lupton	4 75 72 65	Pembroke	30 Veal 1	25 72 10 125	7 20 2 60	
	J. H. Clegg in 6	4 00 60 35	"	30 " 1	60 10 125	6 60 2 40	
	C. W. Hersey	2 48 31 25	"	22 Hens 6	28 16	4 48 1 55	
31	J. H. Lupton	4 38 39 25	"	30 Veal 1	30 65 10 125	6 30 2 32	
	H. L. Lupton	5 00 80 25	"	"	76 11 125	8 36 4 06	
30	C. L. Lupton	3 60 64	Charl.	"	60 9 125	5 40 2 30	
"	Slusack	3 00 66 28	Wendy	"	62 7 125	3 64 1 34	
"	Rich	45 -	"	15 Skin 3		1 60 1 30	
27	Boston	8 75 115 50	Edmunds	30 Sheep 2	106 98 2 00	10 07 2 60	
31	No. 1000	8 00 30 20	Wendy	16 " 1	29 6 2 00	1 79 33	
Apr 7	H. L. Lupton	5 50 87 62	Pembroke	30 Veal 1	25 84 11 137	10 61 1 66	
"	C. L. Lupton	70 - 05	Wendy	10 Skin 3		1 30 40	
" 14	"	4 50 70 50	"	30 Veal 1	67 11 137	8 96 3 66	
"	H. L. Lupton	6 60 70 50	Pembroke	30 Veal 1	25 85 11 137	10 72 4 17	
"	J. H. Lupton	85 -	"	10 Skin 1		76 18	
"	C. L. Lupton	4 50 70 50	Charl.	30 Veal 1	70 105 137	8 72 3 42	
" 14	C. L. Lupton	5 00 70 20	Pembroke	"	1 67 10 125	7 75 1 70	
"	C. L. Lupton	3 25 60	"	"	48 75 128	5 69 1 69	
	Total	24 21 04 620	470	13 180 119	23 23 113	23 49 42 23	

Source: Hersey Journal, p. 1.

At the beginning of the journal and continuing for 37 pages is a chronological record of completed transactions (purchase and sale) in meat and several other commodities. The journal includes almost 700 entries from March 1883 to May 1887, pertaining to purchases and sales of veal, hides, skin, sheep, chicks, hens, turkeys, partridges, geese, pelts, and eggs. Based on the number and completeness of entries, meat and related products seems to have been Hersey's major business endeavor.

Later pages contain entries for 1891, 1892, 1896, and 1899, and reflect other ventures undertaken after the apparent failure of the meat business. None of these accounts occupies more than a few pages of the journal. These other activities include the purchase and use of a boat, reflected on a page entitled "Loss on are (sic) Vessle (sic)," records of a short-lived egg busi-

EXHIBIT 2 Transactions in Wool: Facing Pages

191						Dr
Date.	NAME.	Residence.	Kind and Quantity.	Purpose of Use.	Price.	
Dec 11	J. M. Johnson	4121 E	Wool @	25¢	1000.25	
12	Star Flushing	Frighth	20 Bags	50¢	10.00	
11	J. M. Johnson			50¢	6.00	
Jan 7		4288	Wool	25¢	1072.11	
	Star Flushing	Frighth	20 Bags	30	6.00	
	J. M. Johnson	2124	Wool	25¢	10.00	
				26¢	5.52.44	
28	Star Flushing	Frighth	20 Bags	50¢	6.00	
17	Hersey's outfit			50¢	10.00	
	F. A. Wyman	60		100	2.00	
May 9		Carriage			27.75	
		Commission			6.25	
		Souring			2.18.11	
		Interest			1.05.45	
		Percentage			49.95	
					66.78	
					3732.29	

'91						Cr.
Date.	NAME.	Residence.	Kind and Quantity.	Purpose of Use.	Price.	
May 9	F. A. Wyman	1005 E	Wool @	44¢	4440.52	
		87	Sacks	25¢	21.75	
					4442.27	
					3732.29	
		Balance due May 9 '91			414.98	

Source: Hersey Journal, pp. 53-54

ness in 1892 (with only six entries), records of a wool business also in 1892, records of fines paid (labeled "Fines and Law Expense" related to the apparent seizure of deer shot out of season), an "Account of Land and Wharf" in 1896, and even a page entitled "Losses in Life," which records what appear to be loans which were never repaid along with some other losses including the ultimate loss on the boat mentioned earlier. Most of these entries are simple listings of costs, but some records contain columns labeled "DR" and "CR," such as the two facing pages recording wool transactions shown in Exhibit 2.

Note that all revenues and expenses related to specific ventures were kept together. For example, Hersey did not mix ship expenses with wool expenses. This reflects an understanding that only by separating unrelated costs and revenues can one determine the success or failure of a venture. There is also a page (Exhibit 3) where Hersey summarized all the veal, turkey, chicken, etc. data separately by year. He was then able to see how many calves were butchered and sold, how much he paid in total for the calves and other expenses, and how much, in total,

EXHIBIT 3 Yearly Summary of Transactions

Date.	NAME.	Residence.						Kind and Quantity.		Purpose of Use.				Price.	
		Hamble	Highgate	Spring	Wormie	On Shore	On Cove	On Cove	On Cove	On Cove	On Cove	On Cove	On Cove	On Cove	On Cove
1880	Veal	54	3746	1638	1620	3128	97	40		247	26	584	78	10	107
	Shuck	11	147	200	237	426	67	28		67	78	69	42	69	
	Wentworth	81	714	162	615	506	174	157		77	77	87	76		8
	Shuckland	414	1612	620	1032	1293	173	273		148	97	237	68		48
	Hens live	46	240	187	180	219	168			23	16	66	67		8
	Caladgu	11			28					2	10	4	27		1
	Duckles	8	14			4	17			1	68	1	68		18
	Angles	11	644	145	216	639	612	65		31	11	41	54		7
	Stone	10		8	55					8	40	8	78		2
	Crab				10024	312		46		571	95	440	87	49	181
1881	Veal	161	714	3773	4030	9384	98	273		662	53	1063	16	654	248
	Shuck	4	162	15	11	16	06			10	00	12	66		2
	Wentworth	57	613	220	320	3842	18			56	02	68	78	177	6
	Wentworth	148		383	226			50		36	40	48	28		3
	Wentworth	717	2704	1470	476			163		84	67	75	21	688	
	Chickens	688	2777	112	1570	1968	16	24		244	36	360	25	17	70
	Duckles	7	463	10	30	373	12			6	66	6	02	46	
	Order	39	1710	238	613	1712	57	56		143	74	128	66		14
	Skinn	11			65					3	10	6	16	10	2
	Quail	6	74	20	30	46	13			6	56	7	20		30
	Crab				6462	7918		578		121	12	2781	5	407	12

Source: Hersey Journal, p. 61

he received from the sale. He could then compare the relative value of dealing in veal, chickens and hides.

We now focus on the subject which dominates the journal: Hersey's meat business. These pages are not in double-entry format. Rather, they record on one line each, the purchase and sale of a commodity, along with expenditures related to the work. At the end of each line, a gross profit is computed on the completed transaction (refer to Exhibit 1). The transactions are listed in chronological order according to the date of purchase. The timing of the purchase and sale were closely related, not because the purchase price and the sale price are recorded simultaneously, as would seem the case at first since they are both recorded on the same line, but because meat could not keep long.

The journal records 37 pages of purchases and sales of mostly farm animals and hides. The bulk of the transactions (399) are purchases and sales of veal. Hersey bought the live animals from local farmers, butchered and skinned them, and sold the meat and skins. For each transaction, Hersey noted the date, the supplier's name, the weight of the animal, the purchase price per pound, the home town of the supplier, the freight, commission and cartage fees, the product and its quantity, the number of pounds after butchering, the selling price per pound, the price he received for the skin, and the (gross) profit on each sale. The profit equals the price per pound times the number of pounds, plus the price for the skin, less the price paid to the supplier (whose name and town are noted), less freight, less a commission, less cartage. The column titled "Whole Amount" later becomes the sum of both the price for the skin and the number of pounds times the price per pound, not just the number of pounds times the price per pound.

The format followed by Hersey for recording transactions does not correspond to that found in contemporary bookkeeping manuals. The closest to the columnar format used by Hersey was a "summary" account suggested for farmers [Bexell and Nichols, 1913] which did contain all expenses related to a category, such as wheat or horses, the related revenues and their sources, and a computation of profit or loss (see Exhibit 4). However, Hersey did not compute profit or loss for veal as a category as in this example, but rather profit or loss on each calf purchased. On the other hand, Exhibit 4 is similar to Hersey's consolidated page shown in Exhibit 3.

EXHIBIT 4 Farmer's Accounts

Live Stock Cost Summary, 1912

Stock	Total	Accounts Credited						
		Dr.	Invest 1911	Man labor	Team labor	Cash	Feed	Interst & Deprec
<i>Cattle & Dairy</i>	4184	1940	560			19	1463.40	261.60
<i>Horses</i>	3025	90	450	150		120	593.90	212
<i>Hogs</i>	1937	40	565	180			86	53.40
<i>Sheep</i>	604	20	320	20		8	234	22.20
<i>Poultry</i>	577	38	171	25	120		246.35	14.75
<i>Total</i>								2.5

Illustration 39c

ANNUAL STATEMENT

159

Live Stock Returns Summary 1912

Stock	Total	Accounts Debited							
		Cr.	Cash	Milk	Horse labor	Household	Manure	Invest. 1912	Loss
<i>Cattle & Dairy</i>	5281	10	2295	10	300	93	570	2080	1077.10
<i>Horses</i>	3116	40	495		420	40	90	2025	90.50
<i>Hogs</i>	2492	50	750			52	50	150	550
<i>Sheep</i>	696	378				10		308	91.50
<i>Poultry</i>	1062	25	701			82	50	15	183.75
<i>Total</i>									482.87

Illustration 39d

Source: Bexell and Nichols [1913, pp. 158-9]

In a study covering the period 1300-1800, Yamey [2000] found that such gross profit computations were performed by some merchants. However, they were generally done for an entire category of goods, for a particular journey, or for a batch of goods. According to Bryant and Stratton [1863], recording gross profit on individual transactions was common practice in relation to the results of commission sales, although the format they displayed is still quite different from that employed by Hersey. The presentation in Exhibit 5 illustrates such a commission sale and the relevant computation of profit or loss for that particular sale. As a basis for comparison, Exhibits 6 and 7 are examples of

entries in a sales journal and a purchases journal (called a domestic invoice book), from Bryant and Stratton [1863, pp. 133, 137]. Note that here, no individual gross profits are calculated.

Exhibit 5 represents a complete record of a commission sale — it is an auxiliary record, created to compile information initially recorded elsewhere. Original transactions were recorded in the day book, the only accounting record legally admissible in court at the time [Bryant and Stratton, 1863, p. 11]. The sales price was charged to Charles Stetson. At the bottom, the \$4,000 is the cost of the flour, which will be remitted to the consignor

EXHIBIT 5 Accounting for a Commission Sale

Account Sales of 500 Bbls. Flour on joint % of Niles & Kinne and ourselves, each $\frac{1}{2}$.

1859 Apr.	8	Sold Charles Stetson @ 30 days, on %, 500 bbls. Flour, @ \$9	4500		
		——— Charges. ———			
"	8	Storage and Advertising	\$20		
		Commission, $2\frac{1}{2}$ % on \$4500	112.50		
		Our $\frac{1}{2}$ net gain	183.75	316	25
				4183	75
		Invoice, 500 bbls. Flour, @ \$8	4000		
		$\frac{1}{2}$ net gain	183.75		
		Net proceeds as above	\$4183.75		
		E. E.			
		Due by Equation, May 6.			
		BRYANT & STRATTON, per Packard.			
		NEW YORK, April 8, 1859.			

110

Source: Bryant and Stratton [1863, p. 110]

EXHIBIT 6 Sales Book Entry:

NEW YORK, JULY 1, 1860.

		Gordon Bailey,	Buffalo, N. Y.				
205	50 ps.	9-8 Printed Jaconets, 2572 yds.	@ 15c.	\$385.80			
208	60 ps.	9-8 10 R.&W. " 1509 ¹	" 10c.	150.95			
209	58 ps.	" " 1455	" 10c.	145.50			
210	56 ps.	" " 1394	" 15c.	209.10		891	35
		Note @ 8 months from July 1.					

Source: Bryant and Stratton [1863, p. 137]

EXHIBIT 7
Domestic Invoice Book (purchase) Entry
JULY 10, 1860.

		Amounts forward,	8 months.	1303	76	553	t
◇	John Walker & Co.,						
794	40 ps. Duck Drilling,	1411 ² @ 17c.	239.96				
800	40 " "	1389 ² 18	250.11				
834	36 Brown "	1415 ² 25	353.88				
704	42 W. B. Diaper,	2169 ¹ 7½	162.69			1006	
	Note @ 8 months from July 10.						

Source: Bryant and Stratton [1863, p. 133]

along with his half of the gain on sale. An interesting aspect of this form of presentation lies in understanding what happened to the "gross profit" (\$4,500 - \$4,000 = \$500). First, it is clear that this entire record was written down after the sale took place since the commission is computed on the sales price. The 2½% commission cannot be computed until the sale takes place. The fixed commission percentage creates an incentive for the consignee to sell the flour at the highest possible price. The gain, split between consignor and consignee, can only be computed after the sale and after subtracting the commission and the charge for storage and advertising. All of these events are recorded elsewhere in Bryant and Stratton's books, and they show that the "Charges" listed above all accrue to the consignee. They may include reimbursement for cash payments, but they are usually deductions for the consignee's services — storage, commission, and percent of gain. What this means is that the consignee, upon fixing the sale, deducts his commission, deducts an amount for storage and advertising which may or may not correspond to cash expenditures, and then splits the gain (or loss) with the consignor, finally remitting to him the cost of the flour and his half of the gain.

If we examine Hersey's journal with this in mind, it appears to be, or be similar to, a simple consignment sales book. It now appears that freight, cartage, and the commission, rather than being expenses that Hersey must necessarily pay, are amounts that he charges the seller of the animal. The profit or the loss is the amount remaining after the original cost of the animal and these additional charges have all been settled.

It is difficult to understand the freight and cartage charges even when we know they accrue to Hersey. The freight charge was usually present in the journal, though not always. Its amount at first appears to be approaching a step-fixed charge (25, 50, 55 cents). The most common charge is 25 cents. However, beginning in 1885, we begin to see odd-cent charges, like

37, 46, or 54 cents. The charge is not continuous and is not related to distance (town) or the size of the animal. There is a tendency for the charge to increase if the animal(s) is heavier, but there are too many exceptions to draw any firm conclusions on this point. There are also a number of transactions where no charge is listed, particularly as we approach the last year of the meat business.

One local account of life in Pembroke during the late 19th century mentions taking a calf to town and selling it to a store.⁵ If this was common, why would there be a freight charge for either party? Perhaps these are not freight charges at all but storage costs — an average, imputed charge for holding and feeding animals that cannot be slaughtered immediately. Perhaps it is a retention of profit as is the case in the consignor/consignee example. Or, is this a real fee paid to encourage people to sell their animals to Hersey rather than to another store? Although there does not appear to have been any other meat merchant in Pembroke, at least in 1883 and 1884, a general store might have been able to butcher its own meat. On the other hand, perhaps Hersey was paying a flat fee to someone to visit the farms to collect the calves. We can think of no compelling explanation for the freight charges that convincingly outweighs other possibilities.

The cartage charges in Hersey's journal are also puzzling. They are highly irregular ranging, when they do appear, from a high of fifty to a low of five cents. Cartage appears in 36% of the 1883 veal transactions, in 68% of the 1884 transactions, and in 12% of the 1885 transactions. The charge rarely appears with the other commodities. The irregular cartage charges *might* be occasioned when Hersey sold meat to other stores and paid for transportation rather than selling the meat from his own store.

Hersey's journal was not always completely or accurately maintained. Not everything listed above appears in every entry (see Exhibit 8). Often one or more of the fees disappear and, particularly toward the end of the recorded entries, carelessness, illness, or perhaps despair resulted in the omission of many of the transaction details. In addition, computational errors began to be made. In the early part of the journal it is easy to prove Hersey's calculation of gross profit, whereas at the end it is no longer always possible (for example, see lines 9 and 11 in Exhibit 8).

⁵The University of Maine has a number of the diaries of Willis Carter from 1881, the early 1900s, and the 1920s [Cage Box 67].

EXHIBIT 8

Examples of Errors and Losses

Date.	NAME.	Price	Residence.	Kind and Quantity.	Purpose of Use.	Price.	
Apr. 21	Cass Calvin	5 50 80 72	Lubec	Feed 1	75 63 3	1 95 2 70 -3 1 8	
"	Epitile Allen	4 20 80 -	"	" 1	63 3	1 75 2 26 -2 1 0	
"	Bro. Mrs.	4 20 80 65	"	" 1	63 3	1 75 2 76 -1 8 5	
"	Runway Frank	5 14 40	"	58 1/2	11	46 165	7 80 1 6 8
May 2	Woodsen Jim	7 00 70 1	Runway	5 "	17	64 165	10 89 -2 5 4
"	Wilder Fred	5 35 -	"	60 "	9	42	6 93 9 8
"	Harvey Abr.	6 85	"	30 "	-12	36	3 94 6 9
"	PH	5 80 30	"	Feed 1	75 74 7	8 18 3 73	13
"	"	" 30	"	"	70 4	4 20 4 20	-1 10
"	Smithson G	4 20 80	"	"	80 6	8 00 8 76	-5 3
"	Curley B H	4 20 80	"	"	73	60 42	2 70 3 45 -1 3 5
"	ff.	6 40 35	"	"	67	3 12 3 77	-1 5 2
"	Traden S.	33 04	"	Eggs 281	277 14	39 06	3 27
"	Leighton Hara	9 80 15	"	60 Hens 22	81 145	13 80	2 9 5
"	McKee John	7 00 20	"	14	14	80	1 0 00 2 2 1
"	Joyner	7 77 79	"	Eggs 85	-15	12 75	2 1 9
"	Correll Geo	2 45	"	6 Hens 7	20 16	3 20	6 8
"	Lygonie John	11 00 20	"	75 "	18	74 18 10	13 67 3 6 2
"	Leaking Olga	9 11	"	10 "	22	13 28	2 7 7
"	Hersey Bessie	2 70 25	"	30 Feed 1	80 7	4 20 4 95	1 4 0

Source: Hersey Journal, p. 35.

The distribution of Hersey's transactions in months and years can be seen in Table 1. The table is designed to mirror Hersey's productive year which began in October and ended in late May. No transactions occur in July and August and very few in either June or September. The most active months are March and April, springtime when calves and other animals are born. In the dormant winter months of January and February there were also few transactions.

TABLE 1
Distribution of Transactions Across Months

Months	1883	1883-4	1884-5	1885-6	1886-7	Totals
September	8	9	17			
October	Na*	21	33	3	57	
November	Na	37	25	62		
December	Na	23	20	43		
January	Na	1	2	3		
February	Na	7	9	16		
March	12	24	28	1	20	85
April	34	68	75	14	30	221
May	19	74	41	33	12	179
June	4	12	16			
Totals	65	255	245	72	62	699

*Not available, the journal begins in March 1893.

The distribution of type of animal purchased or sold was not random across months. Veal entries appear in March through May and only rarely in June. Entries for chicks, hens, and turkeys were recorded during the fall. As one would expect, the turkeys are prepared in October, November, and December. Substantial dealings in eggs commence in the spring of 1885.

INSIGHTS TO THE LOCAL ECONOMY AND SOCIETY

Occupations: According to the U.S. census of 1880, Hersey reported his occupation as a farmer and trader. The *Maine Register*, an annual publication reporting on the merchants, manufacturers, and town officials of all Maine cities, towns, and villages, lists Amos' father, E.A. Hersey, from 1876–1878 as a “Groceries and Meat” merchant. “Amos K. Hersey, Groceries and Meat” replaces his father's listing in 1879. The description is simplified to “Meat Merchant” in 1883. Hersey's final appearance in the *Maine Register* is in 1888. This time frame roughly corresponds to that covered by the entries in the journal regarding transactions in meat.

However, as was the case with many Pembroke residents, Hersey probably pursued more than one occupation. The census, in fact, obscures the richness and variety of peoples' lives because it limited their answers to one occupation rather than the many that most, in fact, practiced. For example, a contemporary Pembroke resident and diarist, Willis Carter, was one of Hersey's suppliers.⁶ He reported his occupation as teacher [U.S. Department of the Census, 1880; Colby, 1881; Bridges, 1996], but his diaries show that he supplemented his earnings, in part, by selling some produce and wood. He also performed small jobs for the town (clearing roads, for example), printed cards for sale, and later when the sardine factories opened, occasionally worked in them.

It may also be true of Hersey that he supplemented his income in a variety of ways. From the journal, it is clear that the business was much more active in some months than in others. In particular, there are no entries in the summer months. Like other local inhabitants he probably fished at this time of year.⁷ However, the journal contains no records of this or any other supplemental activities in which Hersey was engaged. This is despite the fact that he was involved in farming.

⁶Willis Carter Diaries — see footnote 5.

⁷We are grateful to local historian, Rebecca Hobart, for this suggestion.

Some farming contributed to almost every household in Pembroke. The 1880 *Census Schedules for Agriculture* reported the size of each farm, as well as the acreage devoted to each crop and the number of each type of animal. Hersey's supplier/neighbors and Hersey himself appear herein. The farms were small, most far less than 100 acres, and the productive acreage is minimal. They were clearly subsistence farms (see Table 2). Hersey planted 1/16 of an acre of wheat and two acres of potatoes. His neighbors' farms were similar — they rarely planted more than two acres of any one crop. Potatoes, wheat, oats, barley, and pulse (legume-type plants) represented the entire spectrum of reported crops. The census did not ask about vegetables, fruit, and berries. Hersey owned only, but typically, three head of cattle: two for milk and one identified as "other" — undoubtedly an ox. Most farmers owned a few head of cattle, some poultry, and sheep. Most had forested acreage from which ten to fifteen cords of wood were cut and sold annually [U.S. Department of the Census, 1880]. A family would keep a cellar full of vegetables, meat in a cold closet, flour by the barrel, 100 pounds of sugar, raisins in large wooden boxes, pickles, and preserves. Fresh milk, cream, butter, and eggs were relatively abundant [Bridges, 1997, p. 89].

TABLE 2
Selected Pembroke Farms: 1880 U.S. Census

Owner	Acreage			Milk Cows		Calves Born	Calves Sold	Other Cattle		Sheep	Lambs
	Tilled	Meadows	Forest								
J.H.Coggins	7	33	40	2	2	2	0	20	23		
P.W. Hersey	3	39	0	2	2	2	0	0	0		
A.K. Hersey	3	32	1	3	2	0	0	0	0		
W. Carter	2	10	80	2	0	0	2	0	0		
Acreage devoted to:											
Poultry	Eggs	Barley	Oats	Wheat	Pulse	Potatoes	Cords of Wood				
42	550	1	2	1/4	1/2	2	10				
25	380	0	0	1/2	1 1/4	1 1/4	0				
0	0	0	0	1/16	0	2	15				
0	0	0	2	2	0	2	15				

Local Business Relations: The journal offers insights to the business environment in which Hersey operated. The town of Pembroke, in Washington County, Maine is located "Down East,"⁸ a few miles from Eastport, the easternmost town in the U.S., and the U.S. border with Canada [Maine Register, 1996].

⁸"Down East" is a term coined by sailors in reference to the winds that blew in an easterly direction from Boston to Nova Scotia.

By contrast, in 1881, there were at least ten general stores on both sides of Pembroke, carrying dry goods, groceries, tobacco, clothing, boots and shoes, stationery, and various other sundries. It is likely that Hersey sold his meat to at least some of these general stores although the journal does not record the buyers' names. According to a map of the town, Hersey may have had his own store [Colby, 1881] out of which he sold the meat. This is not certain because the 1881 map is marked "A. Hersey, shop," and there was more than one A. Hersey living in Pembroke at the time.

Besides the general stores, Pembroke of the late 19th century also boasted milliners and tailors; a drug store; a dealer in hides, calf, and woolskins; a wool-pulling factory; and a number of wheelwrights and smiths. There were manufacturers of brick, furniture, organs, and various wood products (staves, shingles, etc.). The Pembroke Iron Company manufactured nails, bar iron, and hinge plates. Other small manufacturers included two shipbuilders, a carriage and sleigh maker, a harness maker, a sail maker, a cooperage, a block and plank maker, and a couple of saw and grist mills [Colby 1881; *Maine Register*, 1880]. The population supporting these activities was around 2,500 (it is 850 today). It is likely that the town's thriving businesses were also patronized by the people living in the nearby villages and by those sailing in and out of the small harbor.

The journal suggests that most of the people from whom Hersey purchased his products were Pembroke residents, but quite a few also traveled in from the surrounding towns and villages of Perry, Edmunds, Meddybemps, Dennysville, Charlotte, Eastport, Lubec, and Robbinston. Another interesting but perhaps not surprising discovery about this journal is that, all the people listed in it appear as the head of household in the U.S. census. Although it is unlikely that the head of household would *always* be the person who brought in the goods to Hersey, he nevertheless recorded the transaction in that person's name.

Usually one purchaser brought in a single calf. However, there are several examples of one person bringing in quite a few calves. Carson, of Robbinston, arrived every two weeks with five to seven calves. It seems likely that Carson was doing a favor for his neighbors. Each calf was treated as a separate line item, a separate transaction, but Hersey usually ignored the individual weights of the calves (although the weights do appear in his journal), averaged them, and assigned a cost to each calf as if each weighed the same. He let Carson worry about properly reimbursing neighbors in Robbinston. The sales prices for these

calves did vary, suggesting that the sales were individual while the purchase was group.

Major Industries: During the 19th century, one of Maine's primary industries was shipbuilding; nearly every coastal town had a shipyard. By 1830, Maine was the leading shipbuilding state in the nation [Greenan, 1958, p. 123]. Pembroke once had as many as five to seven shipyards and produced at least 100 wooden, ocean-going vessels between 1832 and 1870 [Wilder, 1932, pp. 3, 21, 33]. Indeed, in 1854, Pembroke was listed twelfth out of 77 Maine locales in ship tonnage produced [*Maine Register*, 1855]. Shipbuilding and its ancillary businesses (sail and block and tackle production, as well as manning the ships) supported, at least in part, many of the people of Pembroke.

Later entries in the Hersey journal attest to the significance of ship-related businesses. Hersey records the costs of building a boat along with the eventual sales price (well below the cost, another of his "losses in life"). A later page records costs associated with "an unprofitable trip." In addition, many of the people named in the Hersey journal were associated with the shipping industry. In the 1880 census they identified themselves as sailors, shipbuilders, ship carpenters, teamsters, wharfingers (operators or managers of the wharf), inspectors of customs, spar makers, seamen, and sea captains. Since those named in the journal sold animals to Hersey, they were not only seamen but part-time farmers as well.

Economic Decline: Maine in general suffered during the 1880s. The total number of farms decreased by 3.6%, the acres of improved land in farms by 12.6%, and the monetary value of farms by 3.9%. The production of wheat decreased by 88% and corn by 60%. Oats and hay did buck the trend; production of these commodities increased by 62% and 7.6% respectively [*Historical Statistics*, 1993]. It is not possible to find prices specifically for Maine products but for the U.S. as a whole prices for farm products, foods, wool, and hides and leather products all declined during the decade by 11%, 10%, 30%, and 34% respectively [*Historical Statistics*, 1975]. This period was especially difficult for Mainers whose problems were exacerbated by the decline of shipping and logging. The shipping industry was doomed by new technologies. Steam replaced sail,⁹ larger steel

⁹By 1868, there were steamboats serving all Maine coastal towns from Portland to Machiasport (very near Pembroke) [Greenan, 1958, p. 123].

vessels replaced wooden ships, railroads arrived, and lumber near waterways was exhausted. Without the raw materials needed to construct the new types of ships, Maine's contribution to shipping was to end.¹⁰ However, the death of the industry was protracted, and Pembroke still operated two yards in 1881. By 1900, these had also gone out of business [Greenan, 1958, p. 124].

Of all the areas on the Maine coast, none suffered more than those furthest north with the harshest winters, no usable natural resources, and poor soil. Pembroke and her neighbors were included in this group. During the period covered by Hersey's journal, the population of Pembroke declined rapidly. In 1880, the population was 2,324 [U.S. Department of the Census, 1880], but by the next count, in 1890, it had dropped to 1,514, a 35% decrease which may well have put a strain on a small business [*Maine Register*, 1881]. This decline in population is reflected in Hersey's journal. The number of transactions declined perilously as Table 1 clearly demonstrates.

The decline of the state and the local region are reflected in Hersey's journal in ways other than simply the reduction in the number of transactions.

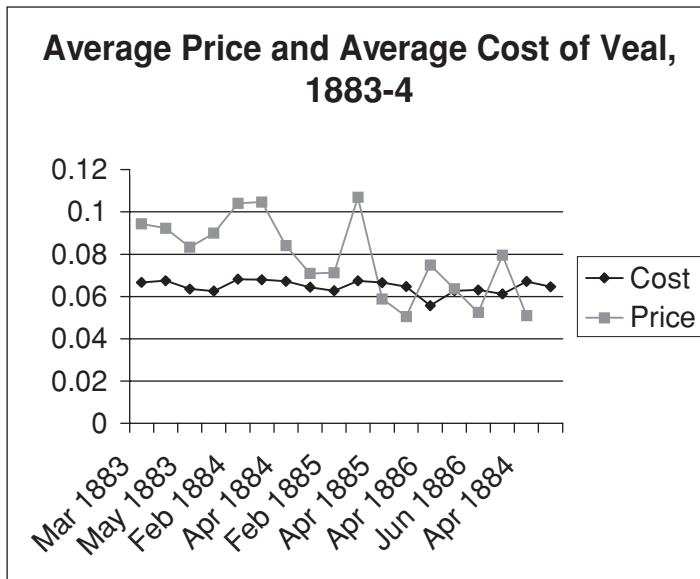
While the absence of a cash or day book for tracking cash flows makes it impossible to know exactly the degree to which Hersey profited or lost on each transaction, the trend toward decline is obvious. Ignoring errors and omissions, many of which do occur, there was a steep decline in his financial situation. The decline was most clearly seen in the veal transactions. The data suggest an increasing incidence of losses on transactions as the years progress. As mentioned earlier one also observes a greater carelessness in keeping the journal.

Over time, Hersey increasingly lost money on veal. Tracking cost against price for 18 consecutive but not contiguous months of transactions from 1883 to 1887 (see Figure 1) we see that, while selling prices were highly variable, they remained above cost for about 10½ months. After that, until the cessation of business activities, prices fell below cost about half the period. What is intriguing is that cost, the price paid to suppliers, was almost fixed over the period (at least when averaged by month). Sales prices were more variable. It seems that Hersey tried to keep prices stable for his neighbors/suppliers, but was not accorded the same courtesy by his buyers. For example, for the 61

¹⁰Bath Iron Works is the only shipyard that has survived. It builds destroyers.

veal transactions of April 1884, the average sales price per pound was 8.4 cents with a standard deviation of .015, while the average cost per pound was 6.7 cents with a standard deviation of .008. In April 1885, the average sales price per pound (70 transactions) was 5.9 cents with a standard deviation of .015, while the average cost per pound was still 6.7 cents but with a standard deviation of .015. Although many loss-making transactions occurred at this point, Hersey may still have made a profit from trading in skin. However, even the prices paid for skins dropped dramatically. In 1883 and 1884, the prices tended to be \$1.25, \$1.37, or \$1.40 per skin. In 1885, the price dropped to \$1, sometimes as low as \$.58 or to nothing at all. The prices occasionally rallied, but in 1886, they stood at \$.80, \$.75, or, again, nothing at all.

FIGURE 1



Another problem for Hersey arose during this period. Beginning in 1886, the *Maine Register* mentioned the existence of another local meat merchant. By 1888, there were four. In 1889, none were listed (an error?), but in 1890, one of the meat merchants who had appeared in the 1888 *Register* returned, now as a merchant of "Stoves, Tinware, Hides and Skins." That person may no longer have been a meat merchant. In fact, it is only the

reference to hides and skins that suggest such a possibility. Perhaps the meat business had been transferred, at least in this town, to the general store or elsewhere. However, one can find meat merchants in other Maine towns during this period.

On the basis of the evidence available it would appear that Hersey succumbed to the triple problems of competition, a declining consumer market, and a general recession. One should recall that of the four meat merchants listed in 1888, only one survived into 1890, the one who had apparently diversified into other products.

CONCLUSIONS

Given the considerable array of venues in which accounting is performed accounting research need not be limited to the examination of large businesses. Today, as in the past, accounting impacts on and is impacted by, the business and personal lives of those who practice the discipline. An investigation of the relationships between accounting, the general economy, the personal lives of entrepreneurs and others who use accounting, and their relationships with suppliers and customers can only enrich our understanding and appreciation of the field.

The journal of Amos Hersey serves as a springboard into the life and times of an individual, his business and the local economy in which he operated. This fairly simple accounting record provokes many wider questions. Who were the suppliers? Who were the buyers? What caused the decline of this business? The search for answers to such questions revealed other features of contemporary society such as the existence of multiple occupations and the adaptability of the local populace to economic change. This was especially the case with Hersey. When his business failed, he tried other ventures and when they too proved unsatisfactory, he and his wife left the area.

Though not a trained accountant, Hersey did display an understanding of bookkeeping and knew the value of keeping very detailed records. We observe that he took accounting for work very seriously indeed, despite the fact that there were no outsiders waiting to scrutinize the results of his operations. Though this journal is not in a traditional format, it answered his information needs. Hersey either learned bookkeeping from his father or had adapted from the many bookkeeping manuals available a method satisfactory for him. For us, the researchers, this accounting offers an entree into a local community of the late nineteenth century.

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INTERFACES

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THE LADY AND THE ACCOUNTS: MISSING FROM ACCOUNTING HISTORY?

Abstract: Amanda Vickery's, *The Gentleman's Daughter: Women's Lives in Georgian England*, [1998] provides a challenging and controversial account of the lives of genteel women in provincial England. In this review essay, we consider the implications of her insights and revelations for accounting history research. We argue that her work raises a number of issues concerning what and where accounting took place in the 18th century. In particular, it is suggested that the detailed 'accounts' contained within genteel women's pocket books were a means by which they came to 'know' their household in order to manage their duties and responsibilities. Accounting historians are encouraged to consider these 'private' records as a potentially illuminating source of material on accounting within and without the 18th-century household.

INTRODUCTION

Extract from the title page of Elizabeth Shackleton's¹
Pocket Diary [1776]:

The
LADIES
MOST ELEGANT AND CONVENIENT
POCKET BOOK,
For the YEAR 1776.
CONTAINING

¹ The letters and diaries of Elizabeth Shackleton (1726-1781) feature prominently in Vickery [1998]. Her thousands of letters and 39 minutely detailed diaries document her life over a 19-year period and her experiences dominate the book. Nevertheless her life is considered more typical than extraordinary and many elements of her value system and experiences are found across scores of other women's manuscripts [p. 11].

Amongft a great Variety of ufeul, ornamental,
and infructive Articles, the following:

The neceffary Pages for Engagements, memorandums,
and Expences, . . . Poetry, Favourite New Songs fung at
the public Gardens; Country Dances; Marketing and
Intereft Tables; Rates of Coachmen, Chairmen &c. &c.
[quoted in Vickery, 1998, plate 22, p. 126]

Unfortunate Mothers Advice [1761]:

The Management of all Domestic Affairs is certainly
the proper Business of Woman; and unfashionably ruf-
tic as fuch an Assertion may be thought, 'tis certainly
not beneath the Dignity of any Lady, however high her
rank, to know how to educate her children, to govern
her fervants, to order an elegant Table with Oeconomy,
and to manage her whole family with Prudence, Regu-
larity and method [quoted in Vickery, 1998, p. 127].

Advice to the Maidens of London By One of That Sex [1678]

Know then that my Parents were very careful to caufe
me to learn writing and *Arithmetic*, for without knowl-
edge of thefe I was told I fhould not be capable of
Trade and Bookkeeping and in thefe I found no dif-
couragement for though *Arithmetic* fet my brains at
work [,] Yet there was fo much delight in feeing the
end, and how each queftion produced a fair answer
and informed me of things I knew not [quoted in Hunt,
1996, p. 58].

Women keeping 'accounts', women 'managing', women 'ac-
counting' in small businesses, 'accounting' in the home, ac-
counting 'for' the home. Thefe quotations, from publications
from the late-17th or 18th centuries, by women or for women,
raife a myriad of issues concerning who practifed accounting,
what keeping accounts involved and when and where it took
place, prior to the 19th century. What was the role of women in
the practice and development of the accounting craft during
this early period? What has accounting history revealed about
the nature, extent and role of household 'accounts' in the 18th
century? When and where was accounting practifed, beyond
the relatively fcarce factory walls or the merchant's office, be-
fore the 19th century? Despite their potential to inform the
agenda of accounting history research, accounting historians
have rarely pofted thefe queftions. Indeed, the historical
records quoted above have been the focus of researchers in
non-accounting difciplines and have emerged as part of more

general enquiries into the lives of 'genteel' women [Vickery, 1998] or "middling" families [Hunt, 1996].

In *The Gentleman's Daughter: Women's Lives in Georgian England*, Amanda Vickery [1998] examines the lives of women from 'genteel' society² in the period 1700 to 1820 and provides a concentrated account of the concerns and experiences that privileged women were prepared to commit to paper. Through a careful and detailed analysis of the letters, diaries and account books of over one hundred women from commercial, gentry and professional families, she brings into question a number of dominant taken-for-granted assumptions about the experiences and position of genteel women in the Georgian period. Importantly, she challenges the view that during this period there was a separation of the everyday worlds of privileged men and women, and opens up a whole new seam for historical analysis. The 18th-century genteel 'household' is re-cast within much wider boundaries of 'propriety' than historians have been apt to admit. Extant histories, including accounting history, which view the genteel 'home' as a site of limited social and intellectual activity are challenged.

FEMALE DOMESTICATE OR HOUSEHOLD MANAGER?

Until recently, the lives of wealthier British women in Georgian England have been represented as increasingly passive and domesticated. The descent of 17th-century women into indolence and luxury is seen to have taken place in the context of an ever-increasing separation between the public world of privileged men and the private world of privileged women. Women are represented as retreating to the home as a site of domesticated femininity, whilst men prospered in the public world of business and affairs. The key moments of change however are unclear and vary with different accounts such that "the unprecedented marginalization of wealthier women can be found in almost any century we care to look" [Vickery, 1998, p. 3]. Nevertheless the dominant view is that the world of work

² Vickery uses the labels 'the genteel' or 'the polite' to refer to the provincial women at the heart of her study who "hailed from families headed by lesser landed gentlemen, attornies, doctors, clerics, merchants and manufacturers" [1998, p. 13]. She uses the labels to convey a sense of moderate social eminence and to convey a sense of outward behavior, whilst not prejudicing the source of an individual's income. But above all, she adopts these terms as "the only terms consistently deployed by the women studied here to confer their own prestige" [ibid.].

became the world of men and the 'home' that of idle, frivolous women [Stone, 1977]. Given such accounts of social change, it is perhaps unsurprising that accounting historians appear to have deemed neither the 18th-century household nor genteel, literate women, as of any significance.

Vickery [1998] offers a convincing critique of this view and suggests genteel women's lives were more complex than hitherto acknowledged. She argues that during the course of the 18th and early-19th centuries, the scope of female experience did not diminish and demonstrates how their intellectual and social horizons embraced a world far beyond the confines of their home or parish. Amongst a collection of social and emotional roles these women singled out in their writings were those of housekeeper and consumer. These roles involved the monitoring of possessions and the making of household expenditures, the calculation of wages and other costs, the maintenance of records of domestic stores and, for some, the recording of revenue derived from sales of home produce such as medicines or butter. The range and extent of their duties and responsibilities are suggestive of an involvement with household management which conflicts with the dominant view of the 18th-century 'new domestic woman' [George, 1973]. The experiences of these women, as revealed through their 'private' correspondence and 'personal' records, challenge the influential view that privileged women came to abandon all enterprise, estate management and productive housekeeping during the 18th century in order to pursue a life of idle leisure [for example, see Davidoff and Hall, 1987].

The focus on genteel women in the 18th century and the use of their own manuscripts to illuminate our understanding of their lives raise a number of questions for accounting history; one important issue being the relative neglect of the household in accounting studies. Whilst recent work has been carried out by Stephen Walker and Sue Llewellyn on this topic [see Llewellyn and Walker, 2000a; Walker, 1998; Walker and Llewellyn, 2000], there is very little written about accounting in, or for the home, prior to the 19th century. By neglecting both the home as a potential site of accounting and women as potential 'accountants' in the 18th century, accounting history has implicitly assumed rather than established the existence and meaning of separate spheres during this period. In turn, it has neglected to explore a set of issues relating to accounting which are fundamental to understanding the distribution of power and the maintenance of inequality in the home and be-

yond [Walker and Llewellyn, 2000, p. 444]. In this paper, we seek to examine how the adoption of gendered dichotomies, such as private and public, and work and home, serve to constrain and influence accounting history research agendas and, in turn, our understanding of accounting in the past. In particular, through a review of Vickery [1998], we explore some of the possibilities for accounting history to (re)examine accounting before the 19th century in ways which do not pre-suppose what is and is not important. In so doing, the 18th-century household is identified as a site of accounting which has been neglected by accounting historians and which offers the opportunity for new understandings of accounting practices in the 18th century. However, before turning to a detailed consideration of these issues, we identify the gaps and silences in the extant literature relating to accounting in the home and women's involvement with accounting.

ACCOUNTING HISTORY

Accounting history 'boomed' in the 1990s. Whilst writers in the 1980s generally began by arguing for the benefit and relevance of an interest in accounting history [for example, Baxter, 1981; Parker, 1981], even this could be the subject of debate [Lister, 1984; Hopwood and Johnson, 1986]. Today this is clearly unnecessary. It is not our intention to review this voluminous literature here [see, for instance, Carnegie and Napier, 1996; Funnell, 1996; Merino, 1998; Poullaos, 1998] but to briefly examine what it has had to say about the period 1700-1820.

Traditionally, the 18th century has been identified as a period where the use of double-entry bookkeeping continued to spread; the first English text on double-entry bookkeeping, Oldcastle's "A Profitable Treatyce. . .", having been published in 1543 [Parker, 1994, 1997]. With the industrial revolution which began in England at the end of the 18th century [Hobsbawm, 1969], this double-entry bookkeeping seemingly spread to manufactories. Much attention has been paid by traditional accounting historians to examining surviving archives such as that of the 18th-century English potter, Josiah Wedgewood [McKendrick, 1970], and discussing the extent to which modern management accounting is anticipated in these early records [for example, Edwards and Boyns, 1992].

Since the publication in *Accounting, Organizations and Society* in 1991 of an article by Miller *et al* entitled "The New

Accounting History: an Introduction", something defined as 'new history' has been set in opposition to 'traditional history'. Whilst this debate has been, at times, heated and acrimonious and emphasized the differences between the approaches, some attempts have been made to identify common ground or synergistic possibilities [Funnell, 1996; Merino, 1998].³ However, this debate is not the key issue here.⁴ Rather, we are concerned with the contribution made by the 'new historians' to understanding accounting in the period.

One of the basic elements of traditional history criticized by the new accounting historians is that of history being 'progressive', as for instance enshrined in the title of Sowell's book "The Evolution of the Theories and Techniques of Standard Costs" [1973]. This results in identifying only developments that lie on some kind of linear 'arrow of progress', which ends in the accounting of the present, being worthy of examination. Post-modern and critical theorists challenge this. They seek to show how a "specific way of seeing" that was neither natural nor necessary, became institutionalized and made to seem "natural". There is no objective history 'out there' [Merino, 1998]. New accounting history calls for the celebration of "difference" in the telling of historical stories [Chua, 1998]. It asks questions about "whose" and "why" particular records are kept.

One particular point that has been taken up by the new accounting historians is the issue of double-entry bookkeeping, and this is particularly relevant here. Reading traditional and undoubtedly scholarly articles such as Parker [1994, 1997] one is impressed by the number of books being published on double-entry bookkeeping. For instance by the time of publication of Roger North's renowned "The Gentleman Accomptant" in 1714 over fifty other English-language treatises had already been published [Parker, 1997]. It is easy to jump from this to the idea that double-entry bookkeeping was, if not the norm, at a kind of leading edge of accounting. Other systems of recording items in monetary terms (we deliberately do not write 'accounting' here, for reasons discussed below) are somehow

³Although reading these papers, we could not help but feel that while some of it was good 'knitting research' [Rhodes, 1997], some of it was rather less inspiring 'armchair theorizing'.

⁴Although a series of works which have later been seen as 'new accounting history' were published in the second half of the 1980s [e.g., from a Foucauldian perspective: Hoskin and Macve, 1986; Loft, 1986; Miller and O'Leary, 1997].

old-fashioned. However, in his examination of the diffusion of double-entry bookkeeping across Northern Europe from the 11th to the 18th centuries, Bryer [1993] argues that while double-entry was known about in England from an early period, it was not widely adopted until as late as the 19th century. This point of view is further reinforced by Napier's study of large aristocratic estates [1991] where it seems that rentier estate management dominated, and double-entry bookkeeping was less important. Miller and Napier [1993] criticize the focus which traditional historians have had on double-entry bookkeeping. They argue that it imposes the present on the past, in the sense that double-entry became important later.

What they argue for instead is a 'genealogy of calculation'. Thus, rather than seeking the origins of financial and management accounting, as we know it, in the bookkeeping of the 17th and 18th century, it is suggested that we should be: "concerned with the ways in which particular calculative technologies, possibly deployed in enterprises over a long period, come to be linked together at a particular moment in time into a functioning network of routinely applicable expertise" [1993, p. 640]. This represents a very different way of widening the focus of accounting history research.

The 'new accounting history' mirrors to some extent what has been referred to as 'new history' [Gaffikin, 1998], for both are concerned with views from 'below' rather than views from 'above' [Burke, 1991]. Barbara Merino talks of how new accounting history has the effect of "rendering the familiar strange" [1998, pp. 606-7] and Vickery herself seems to adopt the "new historians" goal of "rendering the familiar strange". Yet accounting history, old and new, can be said to have neglected the views of women and on women and, despite seeking views from below, the home or the household as a site of accounting history has been seemingly overlooked or dismissed as 'outside' the field of interest [Walker, 1998]. This is done implicitly even in Miller and Napier [1993]. Whilst we are in agreement with their perspective, and welcome their call to "broaden the conception of what counts as accounting, and what counts as evidence" [ibid., p. 645], it is notable that what they focus upon as "calculative technologies" are those arising in "enterprises". When they widen this out at the end of the paper, it is to the modern "health care and education". They do not mention the possibility of looking at accounting in the home. Indeed, with the exception of the work of Walker and Llewellyn cited earlier, accounting in and for the home appears

to be missing as much from new accounting histories as from traditional ones. Whilst such work is emerging, there has yet to be any significant attempt to explore these issues in the period prior to the 19th century.

GENDER, ACCOUNTING AND SOURCES OF HISTORY

The accounting literature has spawned a growing but nevertheless marginalized set of literatures concerning gender, although relatively little of this deals with historical aspects. Much of the work on gender and accounting has focused upon issues relating to women in the accounting profession in Anglo-Saxon countries. In particular, the attempts of women to gain admittance to professional bodies have been documented in detail [see, for example, Kirkham and Loft, 1993; Lehman, 1992]. While some important insights have emerged from this research, there has been lamentably little integration of this material, or its insights, into the accounting history literature. Inevitably, this literature on women in the profession has focused on the late-19th and early-20th centuries; the formative years of the accounting profession, when women struggled to be included within the boundaries of professional accounting. While there were people who called themselves 'accountants' prior to the profession being formed, little evidence has emerged, or indeed been sought, to establish if and how many of them were women. Except for a few reported women 'accountants' in the early censuses, there has been no systematic investigation as to the extent and nature of women's involvement with accounting in the years prior to the mid-19th century. Moreover, these official records are themselves socially constructed and cannot be 'read' as evidence of the participation or otherwise, of women in accounting practices [Kirkham and Loft, 2000]. Overall however, the accounting history literature presents a story of the practice and development of accounting, prior to the latter part of the 19th century, which does not include women. The failure to explore the possibilities of women's involvement with accounting in the 18th century is, however, consistent with much of 18th-century history, which ignores women altogether or accords them only token representation [Hunt, 1996; Vickery, 1998].

Of course the question remains as to the extent and nature of women's contribution to, and experience of, accounting, in the 18th century. The lack of visibility given to women cannot be assumed to establish their absence from the accounting

domain. Hunt [1996] suggests that, in the late-17th and 18th centuries, textbooks on landed estate management and advice books for the elite often contained recommendations that the elites (nobility and gentry) should learn accounting [ibid., p. 59]. Parker [1994] asserts that, before the 19th century in Britain, "accounting was regarded simply as one of the necessary skills of a merchant" [ibid, p. 595]. Hunt [1996] goes beyond such assertions and provides evidence that not only men, but also women, were amongst those who promulgated such advice,⁵ as well as those who took it. She cites the example of the gentlewoman Elizabeth Freke who lived at the turn of the 18th century and who left an "impressive series of single-entry estate accounts" in her diary or "commonplace book" [ibid, p. 242]. Hunt goes further and argues that accounting remained an important badge of belonging for 18th-century middling women, which served to link them in symbolic terms both to the world of trade and to the class that traded. Despite these references to women's participation in, and engagement with, accounting in the 18th century, it has received scant attention in the accounting history literature.

This raises the suggestion that the focus of the extant literature in accounting history is not all-encompassing and prompts a number of questions concerning the visibility that has been given to some issues and arenas but not others. First, we question the emphasis on the 'accounting' practices of the male merchant and the male entrepreneur [e.g., see Parker and Yamey, 1994] rather than the accounts of the woman household manager or woman trader, since the genteel household could be larger than a small business [Vickery, 1998] and more women ran businesses than was commonly thought [Hunt, 1996]. Second, we are moved to enquire why accounting historians have emphasized the aristocratic estate rather than the much more numerous genteel manor [e.g., Napier, 1991], since there were no more than two to three hundred noble families in this period compared to well over ten thousand lesser gentry families [Vickery, 1998, p. 14]. Third, why has accounting history focused upon the relatively scarce factory [e.g., Hopwood, 1987] rather than the more numerous commercial trader since, even by the mid-19th century, the factory was far from being the normal unit of production [Coleman, 1983]. Such questions are

⁵For example the anonymous female author of *Advice to the Maidens of London . . . by One of that Sex*, who made a passionate plea for women to learn bookkeeping, cited earlier.

not suggestive of the irrelevance of prior research but are intended to imply the potential inadequacy of its scope.

Perhaps part of the problem is that researchers tend to be influenced by where and what accounting records are found today, and thus tend to look at companies and other organizations for accounting records in the past, and not to look at other records kept in homes. Assumptions about what constitutes 'private' documents and 'public' records may have served to define the legitimacy or relevance of different research sources. This is one of the possible reasons why the pocket books and diaries, kept by genteel women have not hitherto been acknowledged as a legitimate part of the archives of accounting history. Vickery proposes that the ladies' pocket memorandum book be seen as one of the symbols of genteel housekeeping [1998, p. 133], for it acted as "both the means and the emblem of female mastery of information without which the upper hand was lost and prudent economy obliterated". These pocket-size memorandum books survive in numerous English archives, packed with notes and *accounts*: [our emphasis] from the number of bacon flitches hung in the attic to the terms of a servant's contract" [ibid.]. She views them as a lasting record of the "business" that tied the genteel housekeeper to her desk every morning. Hunt [1996] remarks how middling people of the late 17th and 18th centuries, both men and women, were the first non-elite social grouping to generate really significant quantities of personal documents. Women were exceptionally literate in this group and wrote letters, kept diaries, autobiographies, accounts of travel, as well as "endless books of accounts" [ibid., p. 9]. Another important source was court records. Similarly, despite the fact that "thousands of women traders and property owners are represented in the hundreds of thousands of manuscript pages of surviving insurance records" [ibid., p. 10], accounting historians have failed to acknowledge even the potential of such material, to illuminate our understanding of 18th-century accounting.

It would appear that, in common with much social history, accounting history has accepted and adopted a dichotomy of research issues between those that are important or relevant and those that are deemed trivial or irrelevant based on notions of private and public spheres [Walker, 1998; Walker and Llewellyn, 2000]. Walker and Llewellyn [2000] suggest that, in part, such an emphasis reflects attempts to discursively construct all accounting within the public sphere as a means of establishing and reinforcing its legitimacy and importance.

Such discursive strategies may also serve to construct 'accountings' which are without the public sphere, that is, within the private realm of existence, as without the realm of accounting, and thereby deny them legitimacy and importance.

DUALISMS AND DICHOTOMIES IN DETERMINING WHAT IS AND WHAT IS NOT ACCOUNTING HISTORY

The extant history of the 16th to the 19th century tells of declining female options although the exact timing and extent of their decline varies with "the author's own chronological specialism" [Vickery, 1998, p. 1]. These declining options are viewed to have emerged as the everyday worlds of men and women separated. In particular, notions of separate spheres dominate women's and social history and have served to influence the nature and focus of historical research [see, for example, Davidoff and Hall, 1987;⁶ Hall, 1992; Pinchbeck, 1977]. Vickery examines and challenges 'conventional' histories and many feminist writings which, she argues, adopt contemporary meanings for concepts which are either assumed or deployed in historical investigation. In particular, she rejects the conceptual vocabulary of 'public and private' as having little resonance for the women studied by her and argues that, as the 18th century progressed, women's 'public' profile progressed.

Public or Private: Accounting or Not : The deployment of the public/private dichotomy in past histories has served to presuppose meanings which may not be consistent with those articulated by the actors of the day. Their adoption and presumption serves to limit the researcher's attention and to impose meanings and boundaries that may be at odds with those experienced by the women and men studied. Vickery [1998] uses the writing of her genteel women to illustrate the problem of adopting current notions of private and public and applying them to a different, and possibly inappropriate, discursive regime.⁷ She

⁶A substantial restatement of the separate spheres thesis is provided in the influential work of Davidoff and Hall [1987]. They argue that it was the years 1780 to 1850 that saw the rise of separate spheres as a result of industrial capitalism and the emergence of a class society. Privileged women were seen to abandon all enterprise, estate management and productive housekeeping to their servants in order to devote themselves to the pursuit of leisure and decorative display.

⁷The letters are to be understood and interpreted as a source of discourse, written in a style learnt from manuals, novels and essays of the time, rather than as individual outpourings of original expression.

argues that the use of the terms public and private should not be construed to represent the difference between “the archetypal male public sphere and a female cloister” [ibid., p. 223]. Activities, sites and practices that have been deemed to rest within the private realm are shown to have a ‘public’ nature amongst these genteel women. She argues that social exchanges in genteel houses had a ‘public’ function and the idea that the home was a refuge insulated from the social world would have perplexed the gentry of the period [ibid., p. 196]. Nevertheless, she suggests that a dichotomy between private and public was evident in genteel households in the 18th century and was used to emphasize difference. However, the dichotomy was used and should be understood to imply, the distinction between vulgar publicity and polite selection.⁸ In some instances, public and private corresponded to the differentiation of rank not gender, such that a ‘public’ family ranked higher than a ‘private’ one [ibid., p. 292].

The notion that meaning is socially and historically constituted is not a new one. In social history, a number of writers have challenged the notion that one can understand the meaning of terms such as private and public without reference to the women who experienced them and their ideas about them [Colley, 1992; Erikson, 1993; Wilson, 1995]. Assumptions about meanings, which are grounded in alternative or static histories, may be misleading, not only in understanding the significance of household accounting practices but may lead to a denial of their existence in any other form than one predicated on unsafe assumptions of female triviality and limited accountabilities. The implications of revisiting the implicit and explicit concepts deployed in formulating agendas and conducting research in accounting history are two-fold. First, it is suggestive of a need to question if and how accounting history has adopted contemporary understandings of public and private to determine where and what accounting took place and who practised it. The emphasis on contemporary notions of ‘public’ to identify and justify research agendas must be questioned. Second, it prompts us to question the role served by the deployment of

⁸In *Keywords: A Vocabulary of Culture and Society* [1983], Williams describes the complex history of the word ‘private’. In the 17th and especially the 18th century, “seclusion in the sense of a quiet life, was valued as **privacy** and this developed beyond the sense of solitude to . . . the generalized values of **private life**” [p. 242].

such concepts in determining what is acknowledged to be within or without the boundary of accounting knowledge itself.

Contemporary notions of the public domain have served as the focus for most accounting research [Broadbent et al., 1994; Llewellyn and Walker, 2000b] and women have received scant attention from accounting historians, especially in the period pre-19th century. These two observations are not unrelated. However to argue that women have been neglected due to the emphasis on the public sphere may be too simplistic and even misleading. Vickery [1998] provides convincing evidence that the lives of many 18th-century women brought them into contact with the 'public' domain. Thus she notes the many women 'traders' who came into contact with genteel women and reveals how, from the 1720s, gentlewomen or titled ladies were often responsible for the management of protocol at 'public gatherings' such as assemblies, which involved mastering 'accounting' skills. For example in Derby, "a succession of lady patrons demonstrated their command of book-keeping and social discrimination, as an entry in the account book for 4 August 1752 indicates" [p. 241]. Hunt [1996] adds further support to this thesis and suggests that, in the late-17th and 18th centuries, women were prominent amongst rentiers, moneylenders, and investors.⁹

These observations beg the question, if accounting research has focused upon what is understood to reside within the 'public' domain and these women engaged with the 'public', then why have they not captured the attention of accounting historians? One explanation would be that contemporary notions of the public sphere have dominated historical enquiry such that 'public' gatherings and 'traders' have been captured within 20th century notions of 'private'. If so, then why have men traders, merchants and entrepreneurs been assumed to reside within the public? It would appear that whilst the public/private dichotomy was not used discursively to differentiate on grounds

⁹Hunt [1996] suggests the spread of accounting skills among women during this period is "virtually impossible to quantify" [p. 89]. but anecdotal evidence suggests that it became a desirable skill for the daughters of the genteel or middling classes. The anonymous author of the tract cited in the introduction *'Advice to the Women and Maidens of London'* [1678] kept accounts for the entire household. Also Hunt [1996] refers to an entry dated 16 Nov 1717, in the diary of John Thomlinson, "a worldly young clergyman in the market for a wife who had thoughts of a young woman who he regarded as a 'very managing woman, keeps accounts of all matters of house and husbandry'" [p. 89].

of gender in the 18th century, it has been used this way in accounting history. Contemporary notions of the private/public dichotomy serve to differentiate on grounds of gender. By adopting such notions uncritically in determining the research agenda, accounting historians have served to discursively construct women out of accounting history and in turn, to discursively construct accounting as something that women do not do [Kirkham and Loft, 1993]. Assumptions about the existence and meaning of the private and the public spheres have been adopted by the dominant voices in accounting history, and have served to define not only which 'accounting' or 'accountant' might be deserving of attention but also what is and is not included (or 'counted') as accounting.

Accounting For Work At Home : Vickery explores the validity of another familiar dualism deployed in women's history, that of the separation between work and home. She notes that the dominant view is that from the early part of the 17th century, the world of work became the world of men and the 'home' that of women [Stone, 1977]. Prior to this, in the late-16th to early-17th centuries, the household and the workplace are historically constructed as one and women are viewed as contributing substantially to all its aspects [Clark, 1919]. The gentlewoman of the period is acknowledged to be active in the household and estate management, public affairs and even government [Vickery, 1998, p. 2]. There is no crude dichotomy between women's contribution in the home and in 'work' and the two are seen to have indistinct boundaries such that they coincide and overlap. However, from the early part of the 17th century, the prevailing literature (especially English literature) portrays women's position as one whereby privileged women retreated into the home and were recreated within the domestic space as idle, decorative ornaments [Vicinus, 1972].

The Home as a Site of Consumption: Vickery identifies a number of weaknesses in the domesticity thesis including the reliance upon male promulgations of domesticity as "cast-iron proof" that women were indeed domesticated [1998, p. 7]. She examines historical representations of the home as a site of consumption and challenges the "unquestioned belief in the shallow selfishness of female desire" which has "dogged historical discussion for decades" [ibid., p. 162]. Writers such as McKendrick [1975] have attempted to explain the expanding domestic demand and economic growth in the 18th century in

such terms. Vickery argues that most historians have relied upon Veblen's *Theory of the Leisure Class* [1925] and consequently have dismissed women's dealings with material things as a 'category of leisure'; domestic material culture as an arena of female vanity not skill; and shopping as a degraded female hobby.

A source of the devaluation and denial of women's 'work' has been the emphasis put upon material production in the 18th century. "If a woman did not make butter or cloth then her contribution is seen to be negligible or merely decorative. To recover the full content and meaning of the housekeeping over the *longue durée*, this over-emphasis on a single element of women's work, 'production', must be countered" [Vickery, 1998, p. 132]. The complexity, as well as the demanding diversity of women's work, is lost through such emphases.

In the accounting literature, the household is also conceptualized as site of non-productive consumption. Walker and Llewellyn [2000] suggest the lack of attention given to the household in the accounting literature may be explained by its designation as a site of consumption. Elsewhere they attribute the causes of this, in large part, to the economistic influences on accounting [Llewellyn and Walker, 2000a]. However, critical accounting research has increasingly questioned the dominance of the economic and adopted a broader concept of accounting as a social practice. Despite this, the critical literature has failed to engage with the household. Llewellyn and Walker [2000a] suggest that normative boundaries created around the use of accounting at home preserve the ideology of the home as a caring, expressive domain and, in turn, reinforce the assumptions about the household as a site of non-production and a domain that is not 'public' [p. 451]. Whilst such explanations are helpful in understanding why contemporary households have been neglected by accounting researchers, they cannot be assumed to have any analytical purchase in explaining the neglect of the household as a site of enquiry in earlier periods. Concepts of what constitutes the home and what is regarded as 'work' must be established and not assumed, since such meanings will vary historically and contextually.

Vickery attempts to create an understanding of the 18th-century home and the work within it through her analysis of the pocket-sized memorandum books that symbolized genteel housekeeping in the period. These records constitute detailed 'accounts' of some of the many lived experiences of genteel women. In particular, the pocket books were the tool of the

literate¹⁰ and the lasting record of the 'business' of the household. They are to be found in "virtually every English archive" and are packed with notes and "accounts" [p. 133]. These records lend support to the view that accounting was a 'central' feature of everyday life among the middle classes in the late 17th and 18th centuries [Hunt, 1996].

The "accounts" in these memorandum pocket books and diaries were not however an exercise in double-entry bookkeeping but were almost exclusively concerned with expenditure. Whilst there should be no presumption as to the form or usage that such home accounting assumes, in the context of the 18th-century genteel household, it is difficult to imagine what interest 'accounting' which identified 'capital' might have.¹¹ These pocket books revealed an array of 'accountings' — items ordered were recorded with their price, serviceability or quality and features. Further, a "general interest in the price, specification and availability of consumer goods is catalogued in the diaries" [p. 165]. The diaries reveal some things about other women's lives too. For example, a Mrs. Bishop of Roby wrote enthusiastically to her friend Eliza Whitaker of her farming achievements, and kept her friend minutely informed of crop yields and livestock. The duties and responsibilities of genteel women revealed by these diaries are strikingly similar to those of a Greek wife in ancient times whose duties included tracking household possessions and finances, maintaining records of domestic stores and budgeting for consumption [Walker and Llewellyn, 2000]. This is perhaps not as surprising as may at first be thought, as Pomeroy [1994] notes how Xenophon's *Oeconomicus* became a popular instructional text on household management in England following the Protestant Reformation of the 16th century.

The range of responsibilities and duties of the genteel woman revealed by these documents challenges the notion of the frivolous or profligate female consumer portrayed in history. Whilst the ultimate control of financial resources in the households examined remained obscure, there is no evidence that these women collectively felt in any way financially con-

¹⁰Vickery notes how, in the period 1640 to 1760, 81 percent of women from genteel and professional families in four northern counties are thought to have possessed literacy skills.

¹¹For similar reasons, it is perhaps unsurprising to learn that there is no record of any global account book.

strained [Vickery, 1998, p. 165]. The control and management of financial resources in the home have been identified as central to any understanding of the household economy, gender roles and the distribution of power between spouses [Morris, 1990]. Vickery succeeds in presenting powerful evidence that “outside the households of peers and plutocrats the daily management of consumption fell to women” and with it, inevitably, some control of decision-making [1998, p. 166]. Thus she offers an ‘alternative’ explanation of the meaning of women as consumers to that portrayed in conventional histories. Whilst Vickery cannot be interpreted as a substantive contribution to the research on the difference between men and women’s consumption, her historical sources are strongly suggestive of the repetitive and routine nature of female consumption in contrast with the occasional, impulsive or expensive and dynamic consumption of men. These characteristics are interesting, as they do not correspond neatly with 20th-century notions of gendered attributes of consumption. ‘Impulsiveness’ as an attribute is more commonly identified with the 20th-century female. If such observations are indicative of the characteristics exhibited by other genteel men, then they reinforce the view that concepts such as private or public, home or work, production or consumption, do not ‘travel’ easily and need to be reconstituted within the historical period to which they pertain.

Assumptions in the extant accounting history literature about where ‘accounting’ is and is not to be found, and observations on who practised accounting in the past might be viewed, with some exceptions, to adopt Veblen’s [1925] dangerous assumptions concerning the elite women’s role in the performance of conspicuous leisure (not work). Gendered concepts of space, such as the home and the workplace, convey meanings on practices undertaken within and without them. Hence what is ‘accounting’ in the merchants office may be deemed to be mere household budgeting in the home. This would appear to offer one explanation as to why accounting historians have neglected to examine the role and contribution of women accountants, or explore women’s accountings, or deploy gender as a relevant unit of analysis. Genteel women have made their work visible through the letters and accounts they left behind. It is perhaps time accounting researchers explored their potential for illuminating our understanding of the diverse practices which are ‘accounting’ in the past.

*The 18th-Century Manager:
The Complete Letter Writer [1765]:*

I must assert that the right of directing domestic affairs is by the law of nature in the woman, and that we are perfectly qualified for the exercise of dominion, notwithstanding what has often been said to the contrary . . . where-ever the master exceeds his proper sphere, and pretends to give law to the cook maid as well as the coach man, we observe a great deal of discord and confusion. . . . But when a woman . . . is allowed to direct her house without controul, all Things go well; she prevents even her husband's wishes, the servants know their business and the whole family live easy and happy [quoted in Vickery, 1998, p. 127].

In the 18th century, a number of publications circulated which offered 'advice' to women as to how best to prepare for, and execute, their role as household manager. Vickery suggests that such publications groomed women for the exercise of power and the effective government of her servants [1998, p. 127]. A woman's role in the genteel household was seen to have enabling possibilities for her and positive benefits for the husband or father. Her role encompassed the "management" of people (servants), and of things (household). One genteel woman refers to the difference between a concubine and a wife being that the latter "administered the affairs of the family" [ibid., p. 159]. The wife's authority was sanctioned by custom and case law and available commentary suggests the distinct role of the genteel women encompassed the authoritative management of the household. The attribute of a woman's potential to be a "prudent household manager" was an important consideration in male courtship decisions.

The diaries of Elizabeth Shackleton reveal how she kept ad hoc inventories of cupboards and boxes, monitored the condition of the household goods, kept records of breakages, wear and tear, the mending of broken bits and the regular servicing of utensils [ibid., p. 148]. She also engaged in sales of butter and the amount of revenue generated from such sales was carefully accounted for in her pocket book — "In all 496 pounds of butter were sold bringing in £14 9s 4d in revenue. . . . Worth the annual wages of two to three maidservants" [quoted in Vickery, 1998, p. 152]. Her other duties encompassed monitoring the amount of food in the household, acting as "guardian of supplies" and "head provisioner", though she never prepared meals. Other women in Vickery's study made medicines.

Evidence is also presented that the genteel women worked in heavy-duty chores – washing, scrubbing and ironing etc. [ibid., pp. 146-7]. It was not backbreaking toil but she had to “know” what was involved in each task in order to manage effectively. Indeed these records reveal the myriad of tasks and the understanding of many skills the “elite housekeeper” needed to “know” in order to manage her many responsibilities. These included ordering and cleaning of the physical household, the production of clothes and household goods, husbandry and provisioning, and the making and dispensing of medicines” [ibid.]. Interestingly, whilst Vickery identifies many of the gender roles played out by her families as “utterly traditional”, these encompassed aspects of the genteel woman’s role as a deputy on the estate in her husband’s absence which involved, *inter alia*, “paying the land tax, the widows tax and so on” [ibid., p. 64].

Household management is thus shown to comprise a more diverse set of tasks and responsibilities than acknowledged in the literature and to involve elements of authority and control. These genteel women wielded some control over their domestic dominions and their pocket books, containing copious notes on all aspects of the household in minute detail, were a means of ‘knowing’ which served to help them exert their power over their domestic dominions, with varying degrees of success.¹² “In its staffing, the household functioned like most eighteenth-century commercial enterprises”; genteel women were “managers” more akin to master or gentleman farmer than the “received picture of the unruffled lady of the manor” [ibid., p. 141]. Genteel housekeeping in the 18th century was managerial and the skills involved were both technical and managerial and were recognized and in demand from male members of the household or family.

Such a view of the enabling qualities of these pocket books and their contents is in sharp contrast to Walker’s [1998] observations on 19th-century domestic accounting. He argues that domestic accounting systems helped sustain the operation of patriarchy in the Victorian middle class home. Accounting is

¹² Women servants in particular proved difficult to ‘control’. Lower servants were strikingly independent and mobile and “no upper servant remained long enough to become truly accountable for the smooth running of the household” [Vickery, 1998, p. 147].

seen to be disabling and to serve as an instrument for controlling female consumption and containing women in domestic roles. These contrasting views of household accounting deserve further attention since the historical periods they consider are overlapping. Whilst neither author claims that their findings can be assumed to apply universally to all groups of households, their field of enquiry is nevertheless similar. Hence their different conclusions for the use and practice of accounting require further explanation and are deserving of further research.

Whilst 'management', 'accounting' and 'management accounting' have all received attention from accounting historians, the focus has been determined, in large part, by adopting contemporary understandings of such key terms which, in turn, have served to limit both the field of enquiry and the sources of historical investigation.¹³ Thus, the question of *what* constitutes management is one that has implicitly been resolved within conventional business histories to exclude the management of the "Domestic oeconomy" referred to by writers of the day such as in the 1774 publication *A Fathers Legacy to his Daughter*. This claimed "the Domestic oeconomy of a family is entirely a women's province" [quoted in Vickery, 1998, p. 127]. Vickery argues that such an appreciation of female management skills is "apparent in a host of masculine manuscripts" and letters to daughters and wives referred to their superior administrative skills and often lamented their absence or pleaded for their return to the role of house manager [p. 129]. Female management in the 18th century was an established institution with recognized symbols and ceremonies endorsed by both sexes. Moreover, whilst women's management skills are recognized in

¹³ 'Management' is clearly an example of this, the usage that it has today as a general concept referring to an activity within a company developed in the 20th century, as did the use of the term 'the management'. Exploring the history of the word, Williams [1983] writes that the verb 'to manage' in English was derived from the Italian *managgiare*, which meant 'to handle' and in particular, 'to handle and train horses'. While it was originally used in this sense in English, its meaning had extended by the 16th century to refer to the idea of taking charge or directing. In the latter part of the 17th century and early-18th, the range of usage of the word was extended through confusion with the French word *ménager* (to use carefully), which itself came from *ménage* (household). Thus 'manager' came to refer not only to a trainer or director (*maneggiare*), but also to the careful housekeeper (*ménager*) with the two meanings overlapping, which can be seen in the variations in spellings which included 'menage' as well as 'manage' [pp. 189-90].

the 16th and 17th centuries [see, for example, Clark's, *Working Life of Women in the Seventeenth Century*, 1919] Vickery argues they have been largely neglected by historians of the 18th century [1998, note 14, p. 320].

Accounts of the demise of housekeeping and its rebirth as housework dominate the literature and have done little to illuminate the responsibility, prestige and activity of the 18th-century housekeeper. The invisibility of women as managers or accountants in accounting history in the 16th, 17th or 18th centuries is pervasive. Vickery's work suggests that such silences may be predicated on questionable assumptions about women's lives and the functioning of the household.

CONCLUDING COMMENTS

By her meticulous examination of thousands of letters, pocket books and other evidence, Vickery reveals a set of circumstances and relationships in genteel households that do not marry easily with conventional histories, either as to the chronology of events, the nature of gender roles or the pervasiveness of behaviors and views. Her story of women's lives in this period is the very reverse of the "accepted tale of incarceration in a domestic private sphere" [1998, p. 288]. She suggests her analysis has emerged, in part, as a result of her utilization of the concepts which animated the individuals who produced the historical documents that informed her work.

In this essay, we have attempted to establish why Vickery's insights should be of interest to accounting historians. Her detailed and careful examination of the 'private' records of these women helps to establish the 18th-century genteel household as a site of 'accounting' by women and for women. In so doing, she brings into question accounting histories which have failed to acknowledge even the possibility of meaningful accounting practices within the genteel household. The pocket books of these women have been revealed to contain detailed 'accounts' of the diverse and dispersed aspects of household management. Moreover, it is suggested that these 'accounts' were a means by which the genteel woman came to 'know' her household in order to manage her duties and responsibilities and were a source of power to her. Such enabling possibilities for accounting stand in marked contrast to the view of accounting as a form of repression and as a source of gender inequality, which emerges from extant accounting histories of the 19th century [Kirkham and Loft, 1993; Lehman, 1992; Walker, 1998]. Whether such

characterizations and observations have a resonance beyond the provincial women studied is not the issue. What Vickery provides is a starting point for rendering the familiar notion of the 18th-century domesticated female, strange and in so doing renders the 'familiar' notion of domestic accounting, strange [Merino, 1998]. The Georgian lady and her account books give a view of accounting from 'below' [Burke, 1991] which has hitherto been missing from accounting history, and in so doing, provide new opportunities for historical enquiry in accounting research.

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TECHNOLOGICAL INNOVATIONS AND THE WORK OF THE ACCOUNTING HISTORIAN: SOME KEY ISSUES

Abstract: This paper considers how innovations in information technology have changed the process by which accounting historians collect primary and secondary sources of information. It examines how web-based systems have made it possible for historians to collect data from what is effectively a twenty-four-hour "on-line library". The paper explores some of the limitations of technological innovations and considers the steps necessary to ensure future access to information stored in digital electronic form. It also considers the challenges involved in authenticating primary source documents such as e-mail and facsimiles and the impact of encryption on the availability of data in the future. Advances in information technology suggest that future generations of accounting historians will require new skills.

INTRODUCTION

Performing accounting history research is a labor-intensive process that involves identifying a worthwhile topic, collecting relevant primary and secondary source information, synthesizing prior studies, and analyzing the issues being researched. This article explores critical issues associated with the impact of technological innovations on the work of the accounting historian.

First, it considers how innovations in information technology have simplified the process used by accounting historians

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to collect information from books, articles and similar sources. Second, it looks at how technological innovations have simplified the work of the accounting historian by making it easier to type, edit and store accounting historical manuscripts. Third, it examines the challenges involved in authenticating primary source documentation such as e-mail and facsimiles which are likely to be encountered by accounting historians researching historical topics beginning with the last decade of the 20th century. Fourth, it analyzes the problems associated with reading historical documents stored under computer technology of prior years. Fifth, it discusses issues involving the preservation of digital documents and the steps proposed and taken by interested parties to deal with the danger of losing information because of new technology. Lastly, it considers encrypted primary source information and recommends a way that accounting historians might encourage policies that could ensure the future accessibility of historically important but encrypted data.

This paper concludes on a mixed note. On the one hand, innovations in information technology have made it easy to store enormous amounts of information that may be of use to accounting historians in the future. On the other hand, the abundance of data and the digital form in which it is likely to be held leads to challenges in authenticating and preserving this information.

HOW INNOVATIONS IN INFORMATION TECHNOLOGY CHANGE THE WAY IN WHICH ACCOUNTING HISTORIANS ACCESS SOURCE INFORMATION

The type of information that historical researchers need, that is, primary and secondary source material, has not been changed much by technology. What has changed, however, is how this information is accessed. With improvements in computer technology the search for information can begin with a computer in the researcher's home or office at any hour of the day. On-line public access catalogs (OPACs) now serve the same function that printed cards, physically contained in alphabetical drawers in a library's reference section, did for so many years. OPACs connect researchers via the Internet to card catalogs of universities, important public libraries, and national libraries. Some major archives repositories also have on-line catalogues.

Gaining access to a university's OPAC can be done by typing in a direct Internet address. For example, typing

www.libraries.rutgers.edu as an Internet address will directly access the Rutgers University library system. If the direct address is not known access can also be achieved by first locating the University's Home Page on the Internet. A comprehensive list of OPACs can be accessed through a search engine such as YAHOO.

On-line booksellers such as Amazon.com have simplified the process by which books, including difficult to find titles, can be purchased on-line. Amazon.com has a surprisingly large number of out of print books available. At least for now, however, research libraries with well-honed interlibrary loan capabilities remain the best source for out-of-print and difficult to find scholarly titles. While Amazon.com charges a fee for obtaining out-of-stock books, research libraries will rarely charge those who use their interlibrary loan capabilities.

Clearly the technology in this area is changing. Companies like netLibrary, Ebrary.com and Questia Media convert scholarly books into an electronic format so that they can be read on-line. In the case of netLibrary, which can be found at www.netlibrary.com, web-based technology allows a user who enters a particular topic or keyword to see a listing of books in which this word or topic appears. Clicking on the title of a selected book leads to each of the locations in the book in which the item of interest appears. NetLibrary has about 18,000 copyrighted books and 4,000 public-domain works. But this is only a fraction of the volumes available in major research libraries. Ebrary and Questia Media have plans to make a much larger number of scholarly books available than netLibrary. Ebrary.com already has 130,000 volumes in its demonstration database and plans to have over 600,000 scholarly books electronically available when it opens in 2001. Questia Media expects to have 50,000 volumes when it opens in 2001 with a three-year goal of 250,000.

NetLibrary originally envisioned access both through libraries and private subscriptions. It has discontinued private subscriptions in favor of access only through libraries that pay a fee to netLibrary. Under the Questia Media model anyone will be able to search the company's entire database of titles for free. Only subscribers to the company's service, however, will be able to see the pages of a requested book. Using a somewhat different approach Ebrary.com has adopted what can be thought of as a "photocopy model" under which searching, retrieving and reading will be free. But printing or otherwise copying, for example, by using a cut and paste approach, will

require payment of a small fee, akin to a photocopy charge, which will be deducted on a per page basis from a user's debit card. Ebrary.com will automatically generate a citation at the bottom on any page printed or otherwise copied [Guernsey, 2000].

A major impediment to reading books on-line has been that computer screens do not have the same high level of clarity and resolution as printed books. Technological changes in this area seem likely to at least mitigate these difficulties. Microsoft's "Reader" software program [Smith, 1999] is designed to give the computer screen more of the feel of a book along with the ability to do something that no scholar would dare do to a library book—write in the margins. Microsoft's decision to give away its "Reader" software and sell its related hardware at low cost broadens the availability of scholarly books on-line.

The collected papers of individuals that have often been carefully guarded by librarians are increasingly available at web sites. For example, the papers of Frederick W. Taylor, which are available at Steven's Institute of Technology in Hoboken, New Jersey can be found at <http://taylor.lib.stevens-tech.edu/>.

Accounting history researchers may find it helpful to be on a mailing list or list-serve that provides information of particular interest to them. In contrast to a newsgroup (also known as a bulletin board) where anyone with Internet access can post content, a list-serve is intended for those whom the coordinator of the list agrees has a legitimate interest. Typically the coordinator of the list maintains its content and places on the list only those who will either benefit or are likely to find the information useful. Some list-serves that accounting historians may find valuable include Economic History Net (EH.NET) (messages to list@eh.net) and Network di Storia Economica (Nestore-L) (messages to mailserv@cesit1.unifi.it) which is primarily in Italian. Links to the web sites associated with these list-serves can be found through the Academy of Historians web site at <http://weatherhead.cwru.edu/accounting>.

Libraries are also working at integrated document delivery services. For example, at Rutgers University, the Web of Science links directly to electronic journals held by Rutgers. It also offers a free document delivery service for those journals that the Rutgers library does not own.

In the 1990s journal collections began to be published in CD-ROM form. For research libraries that wanted to acquire collections in many disciplines, the benefits of CD-ROMs were myriad. They include a reduction in expenditures

for new periodicals, the availability of a wider array of journals for interested users and a better utilization of library shelf space.

Web-based technology can often enhance the usefulness of CD-ROMs. For example, consider how the Library of Congress' five-part CD-ROM product entitled "Birth of a Nation" effectively combines CD-ROMs and web-based technologies. It introduces readers to the world of important historical manuscripts, maps, prints and photographs. These images are accompanied by insightful narratives that show the ability of historians to "create a powerful sense of time and place through the creative use of primary sources" [Oshinsky, 1999, p. G-9]. Much of this work follows chronological and thematic lines. The "Birth of the Nation" CD-ROM series is linked to the Library of Congress's American Memory web site providing almost instant access to a vast collection of historical documents. As another example, scholars of Abraham Lincoln can use the web site of the Abraham Lincoln Association (www.alincolnassoc.com) to locate the vast array of material available about the life of Lincoln. Simply typing in words that Abraham Lincoln may have either spoken or written provides a search engine with information that determines in what speech or written document Lincoln used the words of interest to a particular researcher [Mitgang, 1999].

HOW TECHNOLOGY HAS CHANGED THE TYPING, EDITING AND STORING OF ACCOUNTING HISTORICAL MANUSCRIPTS

The swiftness with which technology is changing the work of accounting historians can be seen, in part, by considering how computer technology has changed the typing, editing and storing of academic manuscripts.

For many years the bane of writers of history was the need to initially type and then to continually retype a paper as changes were made. Fortunately, over the past twenty years or so the drudgery of doing all of this has been mitigated by word processing packages that store, print and retrieve manuscripts. The once all too familiar routine of cutting and pasting is now done on the computer rather than with scissors and tape.

The invention of the personal computer has permitted historical manuscripts to be stored in an electronic medium initially on tape and later on five and one-quarter inch low-density

floppy diskettes. These floppy diskettes while a blessing relative to earlier technology had limited storage capacity and were easily scratched causing them to lose information that may have taken days to retype. The advent of low-density three and one-half inch diskettes doubled the amount of storage space and created a more durable medium for storage than existed for the larger diskettes. These three and one-half inch low-density diskettes, in turn, became obsolete when high-density diskettes of the same size quadrupled the amount of information that could be stored.

In the past, out of fear that their work would be lost or otherwise misplaced, cautious individuals would leave printed copies of their manuscripts in their home, their office and perhaps one or more other secured location(s). Computer technology has reduced these fears by allowing manuscripts to be inexpensively stored in multiple formats. For example researchers who want the security of extra copies can now use multiple storage devices (e.g., high-density computer diskettes, hard drives, DAT tapes CD-ROMs, DVDs, and portable hard drives).

Innovations in technology have also led to efficiencies in scanning and saving primary source documents. Scanning these documents, particularly those in a deteriorating condition may ensure that the historical record is not lost. Much of this scanning and saving can be performed at relatively low cost thanks to improvements in optical character readers and larger, more reliable hard drives that allow data to be stored using advanced compression techniques.

Further advances continue to be made in how researchers go about inputting, modifying, and saving their work. Consider in this regard that voice recognition systems have already begun to allow people to orally dictate to a computer, and have the computer type, print and save what is spoken.

AUTHENTICATING DOCUMENTATION IN A DIGITAL WORLD

In recent years hoaxes involving documents purportedly written by famous people such as President John F. Kennedy and infamous ones such as Adolph Hitler have attracted the public's attention. Some of the methods used in evaluating the authenticity of hard copy documents include handwriting analysis, chemical analysis of the ink and a determination of the age of the paper on which documents were written.

E-mail and facsimile messages will provide accounting historians researching topics beginning with the last decade of the 20th century with an additional challenge in authenticating primary source documents. These challenges are likely to be best understood and dealt with by those who understand the technological advantages as well as the limitations of digital transmissions.

Consider in this regard that e-mail messages received by an individual may be found stored on the hard drive of the intended recipient providing evidence that a message had been received. In contrast to regularly delivered post office mail, e-mail messages leave digital footprints that a message had been sent by one computer and received by another computer. Moreover, the computer will store digital evidence of an electronic reply.

For facsimiles there can be digital evidence of transmissions, receipts and responses. The date and the time of transmission along with the sender's facsimile number are electronically printed on each sheet of paper received by the recipient. As in the case of e-mail, digital evidence of an electronic reply may be available.

Ironically, the ease with which e-mail messages are now sent reduces the likelihood that historians, writing about events at the end of the 20th century and thereafter, will locate the letters which have traditionally been a rich primary source. Instead, accounting historians in the future will more likely find relatively few personally written letters but a large number of on-line ones for which knowledge of computer technology may be helpful in verifying their authenticity.

In making judgments and looking back on an increasingly digitized world, will accounting historians of the future have the computer skills to recognize an electronic forgery? Consider as an example, an e-mail that appears to emanate from the Office of the President of the United States. It is possible for someone who is not in any way associated with the U.S. government to compose an e-mail that appears to come from the White House and the President. While this might fool some people into believing that an e-mail message was in fact sent by the President, those who can decipher the computer transmission data that precedes the body of an e-mail message are in a better position to assess its authenticity.

The accounting historian of the future will need to recognize that innocent errors might have occurred in a digitized environment as they did in the pre-digital world. There have

been many examples in the past of errors occurring when manuscripts were copied, when new editions were set in type, and when editors, however well intended, made unfounded decisions resulting in original source documents being published which were very different than that envisioned by the creator. In the case of digital documents electronic "watermarking" helps to alleviate this problem.

In the pre-digital world valuable historical documents were often only allowed to be examined under the watchful eye of a person entrusted with their care. This vigilance may have averted vandalism but it did not eliminate it as pages of important documents were sometimes removed by those who decided to act as censors. Special care must be taken with electronic material since it may be less obvious that someone has removed information. Similarly, in the absence of appropriate safeguards a malicious person might modify an electronic document to reflect their own viewpoint rather than that of the author. While read-only access can enhance assurance that documents being read are what they are purported to be, it will be up to the accounting historian to make judgment calls as to the completeness and authenticity of documentation.

Instead of poring through boxes of papers the accounting historian of the future may be confronted with the riddle of retrieving data stored in a computer system that has long ago been relegated to the dust heap of technology. In searching for primary sources of information within these machines accounting historians may find it desirable to follow some of the procedures commonly employed by today's forensic accountants. Like the forensic accountant in search of fraud, the accounting historian of tomorrow may need to access electronic data which, of course, cannot be seen from outside the machine and which may be imbedded in digitized devices.

Consider that many people delete e-mail messages with the same intended finality that others have in physically shredding a document. The motive may simply be a desire to throw away an uninteresting document, or perhaps of more potential interest to the accounting historian, a desire not to have someone see a particular correspondence. However, some people have learned to their chagrin that the message may still exist within the computer and thus, may be retrievable at least under the computer technology most commonly used at the end of the 20th century. A deleted e-mail message only becomes irretrievable when a computer hard drive is full and new information begins, in effect, to push out this older information

because no more space is available. Accounting historians who are aware of this technological glitch may need to acquire the skills necessary to retrieve data which might otherwise be irretrievable.

The task might involve applying common sense to obtain the password used by a person of interest. People often leave clues for accessing information on their computer. Forensic experts often find sticky notes with a password taped to a computer monitor or stuck under a keyboard. Clues such as the names of family members or pictures of a pet or friend, if they can be identified, often lead to a password that can unlock information contained in a digital device. If passwords cannot be ascertained in this way knowledge of computer software and hardware may be needed to bypass a computer's password and to set up a new one that allows access to needed information [Blank, 2000].

Technological advances may place the accounting historian in search of primary sources of information in the position of having to learn about the computer technology current during the period being researched. Consider in this regard that new technologies likely to aid the accounting historian in verifying the authenticity of primary source documents are emerging at a fast pace. For example, Microsoft has announced that it will include in future versions of its Windows operating systems biometric devices that can identify authorized computer users from fingerprints and eye-scanners [Sapsford, 2000].

Another recent development is the introduction of a software program called BioPassword. This program is based on the idea of using typing rhythms as a means of validating the identity of the person typing. Every time a person types in a password, BioPassword is able to identify that individual through unique characteristics such as hand size, the pressure with which the keys are struck, the length of time keys are held down and the length of time between pressing the keys [Marriott, 2000].

A further important development is a recently enacted United States law that legalizes electronic signatures. This law, known as "E-Signing" is technologically neutral in the sense that it does not favor any specific technology over any others. It is therefore expected to give a tremendous boost to developers of new technologies. Alternative E-Signing technologies currently being considered include public and private key technology (to be discussed later in this paper), a smart card, biometric technologies, and technologies that retain the human

signature in combination with devices such as a digital pad [Feder, 2000].

While it is unclear which technology or combination of technologies will prevail, these developments have implications for future accounting historians, when researching topics relating to the period when these technologies were used. Historians will need to exercise considerable professional judgment in making decisions about the authenticity of primary source documents.

READING HISTORICAL DOCUMENTS STORED UNDER COMPUTER TECHNOLOGY OF PRIOR YEARS

In order to maintain our ability to use information stored in a particular technological platform, two components are needed: hardware and software. Initially, stone, clay and then paper served as the hardware, and language was the software. While we can still read, understand and save old stone, clay and paper records this will not be as easy when we move from our current platform to the next level. From now on, changes in technology may actually decrease our ability to go back to past data.¹ The problem is that we can no longer read and interpret information ourselves; we need an interface. For example, WordStar was the most popular first generation DOS-based word processing program. However, it is difficult to understand information contained in WordStar documents unless we have the program and a computer that can run it. Many new versions of software recognize and/or accept files of older versions of the same software package and software of other vendors while retaining some (but not necessarily all) of the characteristics of the original document. For example, Word 2000 will convert older versions of Word files and also earlier versions of

¹ The speed of technological innovations has resulted in the loss of historically significant documents at an alarming rate. The Commission on Preservation and Access and The Research Library Group [1996] describes numerous examples including one in which data from the U.S. Census deemed to be of long-term historical value could only be read by a UNIVAC type II-A tape drive leading the Committee on the Records of Government to write in a hyperbolic manner that "when the computer tapes containing the raw data from the 1960 federal census came to the attention of NARS [the National Archives and Records Service] there were only two machines in the world capable of reading those tapes; one in Japan and the other already deposited in the Smithsonian as a relic" [p. 2].

Word Perfect retaining the text and most of the formatting of the original document. For a document available in ASCII format only the text will be retained while the formatting will be entirely lost.

The problem of maintaining access to historical business information is essentially an issue of supply and demand. As our current technology is superceded by newer designs, the demand for the old technology decreases. Suppliers of that technology see that the market is shrinking and stop producing for it. As a result, we are left with software, but no hardware on which to use it. You may own some eight-track audio tapes or Beta video cassettes that you can no longer play. If you are fortunate, the same album or movie is available in a newer format because the content is still popular, even though the technology is not. When hardware becomes obsolete only researchers may have an interest in preserving it. For example, The Library of Congress and most university and municipal libraries keep millions of records on microfiche. What will happen to the data contained in those tiny rectangles of film when the last microfiche reader breaks, and we can no longer get the parts to repair it?

Inability to access old data can create problems for many organizations. The current solution to this problem is to make continuous backups. This creates layers of historical data at lower cost than keeping paper records. With today's computer technology, we can convert paper records into digital records through scanning. It is a slow process, so most old paper records have not been converted. Yet we can still read the old records in their original format. Unfortunately, the same will not be true for digital information, which we cannot access without a computer interface.

WHAT IS BEING DONE TO ENHANCE THE LIKELIHOOD THAT IMPORTANT INFORMATION IS NOT LOST DUE TO TECHNOLOGICAL CHANGES?

Fortunately, there is worldwide interest among companies, libraries and archives in preserving documents, software products and other digital information. For example, The Commission on Preservation and Access and the Research Libraries Group [1996] has a task force on digital archiving. Composed of high-level executives at archives, museums, publishers and scholarly societies within the United States, it was established to "investigate the means of ensuring continued access indefi-

nately into the future of records stored in digital electronic form.” [The Commission on Preservation and Access and the Research Libraries Group, 1996, page iii]. This task force issued a draft report in August 1995 and received helpful comments and suggestions from interested parties from around the world. In May 1996 the task force issued its final report which can be found at <http://www.rlg.org/ArchTF/index.html>. Basically it called for the development of a national system of digital archives which it defined as “repositories of digital information that are collectively responsible for the long-term accessibility of the nation’s social, economic, cultural and intellectual heritage instantiated in digital form” [The Commission on Preservation and Access and the Research Libraries Group, 1996, p. iii]. The envisioned digital archives differ from digital libraries in the sense that digital libraries collect and store digital information but may not necessarily provide long-term access and storage for that information.

The proposed national archival system would be formed through two essential mechanisms. First, these repositories would need to satisfy the standard of an independently administered archival certification body. This in effect would prove to users that they are dealing with a reliable body. Second, these depositories would need to provide fail-safe mechanism to ensure an aggressive rescue function was being performed to preserve significant digital information that might otherwise be lost.

The Task Force’s report of May 1996 recognized the need for a migration strategy:

Migration is a set of organized tasks designed to achieve the periodic transfer of digital material from one hardware/software configuration to another, or from one generation of computer technology to a subsequent generation. The purpose of migration is to preserve the integrity of digital objects and to retain the ability for clients to retrieve, display, and otherwise use them in the face of constantly changing technology. The Task Force regards migration as an essential function of digital archives [The Commission on Preservation and Access and the Research Libraries Group, 1996, p. iii].

The Task Force favored migration over the commonly used (and often still essential) process of “refreshing” under which data is transferred from one medium to another, for example from a deteriorating hard drive to a newer one.

In 1998 as a follow-up to its Task Force Report the Research Library Group funded a study that can be found at <http://www.rlg.org/preserv/digpres.html> which looked at the preservation policies of its members. It found that less than half of the responding institutions with digital holdings refresh them to new media or migrate them to current formats. The majority of institutions that “refresh” or “migrate” materials do so on an ad-hoc basis or as part of a system update; a majority of respondents also lack the capacity to mount, read or access data on some of the media they hold. While there was concern over the lack of uniform standards, there was a consensus that coordinated strategies and shared resources were essential in achieving broad solutions [Hedstrom and Montgomery, 1998].

Suggestions similar to those proposed by the Research Library Group have been made in other countries. For example, higher education institutions in the United Kingdom have created a useful document entitled “A Strategic Policy Framework for Creating and Preserving Digital Collections” located at <http://ahds.ac.uk/manage/framework.htm>. It describes the importance of having institutional commitment and a framework of policies and procedures to ensure that there will be viable digital preservation. [Beagrie and Greenstein, 1998]. Also, the National Library of Australia has embraced a “Statement of Principles for the Preservation of a Long-Term Access to Australian Digital Objects.” This document sets up specific policies on digital preservation and can be found at www.nla.gov.au/preserve/digital/princ.html [National Library of Australia, 1995].

ENCRYPTION

Concern over the stealing of trade secrets and/or a desire to protect personal privacy in a digitized world in which disturbing acts, such as identity theft, are occurring has encouraged increased use of encryption software. This penchant for privacy has also been fueled by the actions of Internet companies like DoubleClick.com which seek to match Internet use with specific individuals.

In researching historical topics beginning with the last decade of the 20th century, accounting historians of tomorrow may encounter the frustration of trying to obtain primary source information relative to individuals who, as a backlash to such efforts, encrypt their digital tracks. This desire for privacy has been aided by public-key cryptography, a means to limit

e-mail's accessibility to the sender and the intended recipient. This encryption technology, which became known as PGP (Pretty Good Privacy), requires two keys, one by the sender, and the other by the recipient. The sender uses the recipient's "public key" available on the web (for encryption) and the recipient uses his/her own "private key" to decode the message. This technology was initially considered so powerful an encryption device that the U.S. government attempted to classify it as "ammunition" so that it could not be sent outside the country. By 1993, however, the computer code behind this encryption technology was posted on the Internet. This has led to the creation of a host of new companies that sell encryption services to individuals desiring to protect their privacy.

It is difficult to measure the extent to which encryption will result in a lack of accessibility to the information which future accounting historians may find important. One could argue that accounting historians should not bother to consider the policy implications of this issue since it will be many years before we are studying historical topics for which encrypted information becomes a problem. On the other hand, this may be an area where accounting historians, who like other historian, have generally been silent on the issue of preserving our digital heritage, can make a contribution. While the technical areas of preservation via migration and the creation of central depositories of digital information are probably best left to professional librarians, accounting historians might make a meaningful contribution by examining the effect of encryption on the availability of primary source documents to future researchers. With today's hardware/software state of the art technology it may take a lifetime to decrypt text by complete enumeration. While technology may improve in the future allowing historians to decrypt it, further advances in encryption technology may foil these attempts.

Groups such as the Academy of Accounting Historians might consider the feasibility of making recommendations requiring that all encrypted data and other firewalls be initially programmed to expire after a set period of time. In this manner a sufficient length of time (say, 50 years from its creation) could be allowed to elapse so that historians will benefit by having access to potentially important primary source information while those involved with its creation would no longer be injured by its dissemination.

Might such a recommendation be legislative in nature and go beyond encryption to include the retention of other histori-

cally important digitized information as well as that which might not be encrypted? Companies are often required by law to preserve, for a prescribed period, certain financial, environmental and other data so that it is available for examination by the appropriate governmental agency. While companies are legally required in these cases to provide data, it is doubtful that such an approach would work for other potentially important historical information that is not required to be retained under current law. It is hard to justify requiring companies to keep records of historical importance in a retrievable format when technological advances make retrieval increasingly difficult.

Legislation of this sort would also run counter to a business environment in which companies are increasingly concerned about unnecessary government regulation. Further, just as the various committees and task forces of librarians that considered preservation policies eschew legislation in favor of cooperation it would be better to convince companies that they have a vested interest in retaining historically important information.

Many potentially important digitized primary source documents are likely, however, to be destroyed irrespective of the above consideration because of an increasing number of electronic discovery lawsuits. Concerns over the legal exposure of this discovery process often result in companies retaining only that data which is required. E-mail and other potentially valuable primary sources of information to accounting historians may not be retained.

In spite of the fact that the increasing use of encryption and company fear of lawsuits may imperil the availability of some historically important information, improvements in technology may lead to other compensating sources of data. Consider in this regard that the rapid integration of audio, video and text has led to the production of films and documentaries that in the past could only be produced by the most sophisticated professional studios. Inexpensive video cameras and the increasing ability of computers to integrate audio, video and text have led some to claim that in the not too distant future we will be watching films which not only broadcast images and sound but also smell and taste. Future events captured in such rich detail, while subject to potential manipulation due to the same computer technology which allowed it to be captured in the first place, offer tantalizing prospects for contemporaneously capturing and storing valuable primary source information.

CONCLUSIONS

Technological innovations have not changed the work that accounting historians perform. Yet, computer technology is dramatically changing the *process* by which accounting history research is performed and the way researchers obtain and work with information. While accounting historians may still find it necessary to physically visit libraries and records offices to obtain source materials, the number of trips will be significantly reduced by advances in computer technology. There has never been more access to more information, available on the operation of a few keystrokes.

Paper, particularly acid-free paper, remains the most effective long-term storage medium for recording information. We know that books printed on acid-free paper with good air-conditioning can last 500 years and that microfilm if properly cared for will also last hundreds of years. In contrast, digital storage media such as magnetic tape and CD-ROMs are expected to last only ten years and there remains much uncertainty concerning the shelf life of other digitized media [Brand, 1999]. One highly respected figure in the field of digital preservation has written: "It is only slightly facetious to say that digital information lasts forever—or five years, whichever comes first" [Rothenberg, 1995, p. 42]. But the alternative to digitization, printed materials in the form of books, journals, newspapers are costly and occupy much space.

In our current plateau new history is being created and stored in digital format everyday. For now it is accessible to us. When the technological base changes, it may no longer be possible to return to the original record so easily. It is likely that we will still need the old technology to interpret data trapped in digital-electronic-magnetic-optical formats.

A new technological platform would help historians by improving the storage, manipulation and dissemination of new data. Unfortunately, in the future it may create impediments to accessing the data created in the formats that we use today. Migrating data to new platforms is the key to developing preservation policies that those with responsibility for data preservation are likely to find acceptable. Company retention strategies, preservation efforts of libraries working separately and together, and the ability of the accounting historian to navigate in an increasingly digitized world will affect how relatively easy or difficult it will be to access information in the future.

We have no way to know what the next generation of

information technology will be. It might have a liquid base, or encoded information in DNA strands, or be some form that we cannot even imagine. However, we can guess that the data media of the future will be as unrelated to current computer technology as a hard drive is to a magazine.

The speed at which these technological changes are occurring is consistent with a law known to computer mavens as Moore's Law, which states that chip density doubles every eighteen months.² If Moore's Law continues to hold, accounting history may be entering a new millennium, both chronologically and figuratively, as information becomes easier to obtain.

Of course, history is best studied in hindsight and historians are usually wise to write about events which occurred long ago. But the transformations occurring today in computer technology are history in the making. The nature of these innovations and the speed at which they are occurring would amaze anyone who like "Rip Van Winkle" had just woken from a long sleep, as well as others who may have just taken a short nap.

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² $D(\log(t/c)) = (\log 2/18)dm$, t = transistors, c = chips, m = time in months

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ACCOUNTING HISTORY: A SURVEY OF ACADEMIC INTEREST IN THE U.S.

Abstract: A number of the reports by academicians and practitioners in the United States have called for significant change in accounting education and an enhanced role for accounting history in curricula and research. However, the survey results reported in this paper suggest that achieving wider acceptance of accounting history presents some perplexing problems. Doctoral faculty, especially assistant professors, report less interest in accounting history than non-doctoral faculty. Although a majority of academicians consider accounting history research to be acceptable for promotion, tenure and hiring decisions and a valuable aid to teaching, practitioners, students, doctoral faculty strongly believe that it is of less value than mainstream empirical research in accounting. Most academicians perceive that research in accounting history is not as methodologically rigorous as other branches of accounting research.

INTRODUCTION

In recent years, numerous study groups have discussed problems associated with the current model of accounting education and research and their relevance to the 21st century. The issue of relevance gained importance because of the changes in the business environment, a shift from manufacturing to a service economy, the impact of information technology, and greater communication across geographical boundaries and cultures [Mueller and Simmons, 1989]. Many academicians believe the accounting education model, which embraces both teaching and research dimensions, is outdated with little relevance to the changes taking place in the wider world [Elliott, 1991, Williams, 1991]. Others point out that accounting research produces results that are too technical and not relevant for practice. Thus accounting research, often, has very little effect on public or professional policy [Elliott, 1991; Sunder, 1991].

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Both academicians and practitioners agree that if accounting is to serve a useful role in this changing environment, accounting education and accounting research should become broader based, dynamic, and not restricted or constrained by a single model or approach. Numerous committees formed by the American Accounting Association (AAA), the American Institute of Certified Public Accountants (AICPA), and others have recommended significant changes in accounting education [AAA, 1986; Perspectives, 1989; AECC, 1990]. The consensus of these committees was that accounting education should include general knowledge, business knowledge, accounting knowledge, and the accounting curriculum should include a greater role for accounting history in both teaching and research [Coffman et al., 1993]. The American Accounting Association Committee on the Future Structure, Content, and Scope of the Accounting Profession (the Bedford Committee, AAA, 1986) stated that accounting education should develop "knowledge of the accounting profession including: history of accounting and its role as an information system in society" [p. 183]. "The Perspectives on Education: Capabilities for Success in the Accounting Profession" [Perspectives, 1989], a document issued by executives from public accounting firms, stated that accounting knowledge must include "the history of the accounting profession and accounting thought" [p. 8]. The Accounting Education Change Commission [AECC, 1990] also expressed similar views when it said, "knowledge of historical and contemporary events affecting the profession is essential to effective teaching" [p. 310] and "history of the accounting profession and accounting thought" [p. 311] are both essential to effective teaching.

We can point to two major changes last century that demand a greater understanding of accounting history — developments in information technology and the globalization of business. In addition to the U.S., countries such as the U.K., Germany, Japan, China, and a few Pacific Rim countries play a lead role in the global market place. Although culturally diverse, some of these countries are comparable to the U.S. in their business practices, technologies and organizational structures, while others have different economic systems. Some follow the free market system, while others follow systems ranging from mostly state-owned enterprises to a mixture of state-supported and free market enterprises. Some allow free flow of information, while others censor information. Each has its distinctive cultures. If these disparate countries have to realistically do business with each other, enter into agreements, or

resolve disputes, they must understand each other's cultures, history, and business systems. As Wallace [1990] points out, "The alternative solutions taken by various professionals, fields, countries, and economic styles should be presented and discussed" [p. 303].

Before we prescribe or evaluate how accounting techniques and practices must change or how accountants can be effective in this new technological and global environment, we must understand the evolution of accounting. As Roush and Smith [1997] point out, we should first understand how or why an accounting principle was adopted. What was acceptable practice before the changes were implemented, and what other alternatives were considered before adopting the new accounting principle? Whose interests were recognized by an accounting standard, and whose interests were subordinated? These are important questions that only a study of the history of accounting could answer. Answering these questions would help us understand how accounting concepts and techniques evolved contemporaneously with changes in technology and the world economy. Similarly, study of accounting history would help us observe how the changes in the world economy influenced changes in accounting institutions. For the longer term, studying the evolution of accounting practices would help us in understanding public policy; provide an acceptable basis for harmonization of accounting standards, or ideas for making cost measures more relevant.

This paper examines whether the greater emphasis placed by the various committees on the need to include accounting history in accounting curriculum have indeed translated into (1) more accounting courses with a predominant history content in U.S. business schools, and (2) interest among U.S. academicians in historical accounting research. Our study is U.S. centric because, as Slocum and Roberts [1986] suggests, in the past, U.S. academicians there have been less receptive to implementing courses with a history content and researching and publishing articles with a historical focus. We examine whether significant changes in perceptions have occurred since 1985 regarding the feasibility of conducting research in areas with an accounting history content. The paper first addresses the changes in the area of teaching and follows this with a report on the changes in expressed interest in accounting history research. In both cases, the study compares doctoral institutions with non-doctoral institutions. Additionally, perceptions of accounting faculty regarding the relevance of history research in

promotion and tenure decisions are contrasted between individuals at doctoral and non-doctoral institutions and among faculty from various ranks.

RESEARCH METHODOLOGY

In 1985, Slocum and Roberts conducted a survey of academicians to examine the provision of courses in accounting history, degree of interest in teaching and doing research in accounting history, and the perceptions about the usefulness of accounting history research in promotion and tenure decisions. During 1997, we reexamined some of the issues identified by Slocum and Roberts to find out how perceptions about accounting history have changed since 1985. However, while we make references to the earlier survey results, we do not report specific data from the 1985 study, because differences in the wording between the two surveys preclude a direct comparison of the results in absolute terms.

Our questionnaire was mailed to academicians listed in the 1997 "Prentice-Hall Accounting Faculty Directory" compiled by James R. Hasselback. We selected all the doctoral-granting institutions in the United States (with the exception of Georgia State University) and a random sample of non-doctoral granting institutions that contained accounting departments with five or more faculty holding at least two of the three faculty ranks of professor, associate professor, and assistant professor. We identified 255 institutions, 86 of which were doctoral institutions and 169 were non-doctoral institutions. We sent out a total of 935 surveys to heads of accounting units and individual accounting faculty employed in these 255 institutions and received 377 usable surveys, resulting in a 40% response rate. The response was 36% for faculty from doctoral institutions and 41% for faculty from non-doctoral institutions. Table 1 provides a profile of the respondents to the survey. The doctoral and non-doctoral institution dichotomy was used because prior research has shown that the evaluation standards and publication requirements at these institutions differ significantly [Campbell et al., 1983; Cargile and Bublitz, 1986; Milne and Vent, 1987; Schulz et al., 1989].

The survey mailed to faculty asked for responses on three subjects: (1) information on the number of accounting courses with history content taught in their schools and their interest in history research; (2) perceptions of their institutions' views regarding the current status of historical research in accounting

TABLE 1
Profile of Respondents to the Survey

Type of Institution	Faculty Rank					Years of Service				
	Head	Full	Asso.	Asst.	Total	< 6	7-10	11-20	> 20	Total
Doctoral	28	29	33	34	124	20	19	39	46	124
Non-Doctoral	61	75	56	61	253	23	37	99	94	253
Total	89	104	89	95	377	43	56	138	140	377
Males	74	89	70	53	286	25	33	97	131	286
Females	15	15	17	42	89	18	23	38	10	89
Total	89	104	87	95	375*	43	56	135	141	375*

* Two individuals in the associate rank did not indicate their sex.

and how it is valued for hiring, promotion, and tenure purposes; and (3) perceptions regarding the status of historical research in accounting. Changes in emphasis over time were interpreted by comparing the average 1997 responses to the responses generated by the 1985 Slocum and Roberts survey.

ANALYSIS AND RESULTS

Interest in Accounting History: Analysis of the survey data involved both descriptive tables and statistical tests for differences between the two types of institutions and faculty ranks using a chi-square procedure.

First, we asked the faculty to indicate their level of interest in accounting history on a scale of 0 to 10 (with 0 = no interest and 10 = significant interest). This is significant because, although an institution may recognize the importance of including historical content in accounting courses, it must find faculty to teach the curriculum, who have interest in teaching accounting history and conducting historical research. Furthermore, if faculty have no expressed interest in accounting history, they are not likely to encourage their institutions to offer a course in accounting history or even at a minimum, to include historical content in their traditional accounting courses.

We examined faculty interest in accounting history according to two variables: type of institution in which employed and academic rank. We used these categories because we expected research and publication focus to differ between doctoral and non-doctoral institutions. We expected faculty from doctoral

institutions to engage in mainstream research (for example, market-based research) that is publishable in top-tier accounting journals such as *The Accounting Review* or *The Journal of Accounting Research*.

Among the faculty ranks, we expected heads of departments and assistant professors from doctoral institutions to show less interest in accounting history than associate professors or professors. Similar to Ettredge and Wong-on-Wing, [1991], heads of departments of doctoral institutions may view mainstream research publications (e.g. empirical, market-based research) in the top-ranked journals as more prestigious and as creating greater recognition for their faculty and department than accounting history research. Consequently, untenured assistant professors would follow the lead of their heads of departments and would show low interest in historical research. We believe, however, that tenured and senior faculty would be more inclined to pursue research that interests them, even if it is not mainstream or popular (e.g. history research). Table 2 reports the responses.

We interpreted means below 3 as slight or no interest in accounting history, between 3 and 6 as moderate interest, and above 6 as significant interest. The results indicate that the interest shown by faculty to accounting history is, at most,

TABLE 2
Level of Interest in Accounting History

Faculty Classification	Type of Institution*						Chi-Sq. (p-value)
	Doctoral		Non-Doctoral				
	No.	Mean	No.	Mean	No.	Mean	
Head	28	3.75	61	3.93	89	3.88	9.768 (0.461)
Professor	29	4.11	75	4.58	104	4.54	10.510 (0.397)
Associate	33	4.03	56	3.96	89	3.98	10.935 (0.363)
Assistant	34	2.62	61	4.23	95	3.65	16.121 (0.096)**
Total	124	3.67	253	4.21	377	4.03	

*The responses were provided on a scale of 0 to 10 (with 0 = no interest and 10 = significant interest).

**Significant at the 0.10 level.

* We also tested response differences between types of institutions and did not find the results to be statistically significant (Chi-Sq. = 28.932 and p = 0.521)

moderate. This is true for faculty from both doctoral and non-doctoral institutions and for the various faculty ranks. However, faculty from non-doctoral institutions, in general, appeared to show more interest in accounting history than faculty from doctoral institutions.

Responses of faculty from various ranks support our expectations. Heads of departments of doctoral institutions indicated only moderate interest (3.75) and similarly, assistant professors from doctoral institutions indicated slight or even no interest in accounting history (mean = 2.62). While the responses of the heads of departments and assistant professors from non-doctoral institutions are higher, the level of interest can only be defined as moderate. Associate professors and professors from both doctoral and non-doctoral institutions indicated slightly more interest in accounting history. The level of interest in history research indicated by assistant professors from doctoral institutions compared to faculty from non-doctoral institutions was statistically significant (at the 0.10 level for assistant professors). When compared to the responses to the 1985 survey, the interest of heads of doctoral institutions in accounting history has declined. Assistant professors continued to show low levels of interest in accounting history.

Courses with a history focus: We followed the questions on the interest of individual members of faculty in accounting history with questions concerning their institution's interest in accounting history. Since various academic and practitioner groups have recommended use of historical content in accounting curriculum, we asked the faculty to provide information on the number and level of courses involving accounting history in their accounting program. Table 3 reports the responses.

TABLE 3
Accounting Courses with a History Focus

Course Level:	Type of Institution		Total N=216
	Doctoral N=70	Non-doctoral N=146	
Undergraduate	2	0	2
Masters	4	7	11
Doctoral	7	0	7
Total	13	7	20

The results do not indicate that academic institutions are taking the recommendations of the AECC and others seriously by implementing courses with a history focus. When compared to the 1985 survey results, in doctoral institutions, the number of courses with an accounting history focus has actually declined. In non-doctoral institutions, courses with a history focus have shown a marginal increase.

The respondents were also asked to indicate whether their institution had either added or deleted a course with a history focus and whether there are any plans in their institution to add a course with a history focus. Since 1985, no course with a history focus was deleted, and only one doctoral institution has added an undergraduate course with a history focus. There were no plans in any institution to add a course with history content.

Accounting History Research Publications in Hiring and Promotion/Tenure Decisions: Numerous outlets are available for publishing accounting history research. However, unless academicians perceive that accounting history research is recognized by their peers as quality research and is rewarded with promotion and tenure, they are unlikely to engage it and take advantage of publication opportunities in the field. The institution's perceptions about what constitutes acceptable research during promotion/tenure is bound to influence an academician's choice of research area and publication intentions.

Academic institutions tend to hire an individual if a good match exists between the institution's expectations about acceptable research and publications and the applicant's current publication record and research interests [Schroeder and Saftner, 1989; and Holland and Arrington, 1987]. Similarly, the individual would most likely accept a job offer from the institution that s/he perceives will offer the reward of promotion and tenure based on publications derived from current research interests. We therefore requested academicians to convey their perceptions about the usefulness of accounting history research in two distinctive areas: (1) promotion and tenure and (2) hiring of new faculty.

As prior literature indicates, what counts as acceptable research significantly differs among institutions, and specifically between doctoral and non-doctoral institutions. Doctoral institutions are more selective about what is acceptable research for tenure/promotion decisions than non-doctoral institutions [Bazley, 1975; Brown and Gardner, 1985; Schulz et al., 1989].

We do not imply that research deemed acceptable for hiring or promotion/tenure decisions is indicative of the quality or worth of that research. However, there is greater risk for an academician who, in the early part of a career, pursues research considered not to be mainstream.

Whether an institution views certain types of research as mainstream and whether certain publications are acceptable for hiring or promotion/tenure decisions are often influenced by the opinions of the head of the department, the dean, and a few influential faculty within the department. Although academicians may agree or differ on what types of research are interesting or useful, on a more pragmatic note, they would be compelled to pursue the types of research that are acceptable to their institutions. However, on a more personal level, a faculty member's views on research may differ from the institutional views. Analyzing the differences between the faculty's perception of the institution's views and their personal views about history research would be informative for the following reasons. If there were no differences in the perceptions between academicians and their institutions about the usefulness of history research and publications during promotion, tenure, and hiring, it would suggest that faculty support their institution's view about history research. On the contrary, if academicians' personal perceptions significantly differ from their institution's perceptions about the usefulness of history research and believe that it should be given greater weight during promotion, tenure, and hiring, it would indicate their reluctance to conduct history research is guided by more strategic reasons than by perceived intrinsic value.

We first requested faculty to respond on what they believed was their institution's views about the usefulness of history research during hiring and promotion/tenure decisions. We then requested the faculty to respond on their personal views about historical research and the relative value of accounting history publications compared to other academic publications. In both instances, the questions elicited respondents' perceptions about their institution's views on the worth of accounting history research and publications in promotion/tenure decisions (equal to other empirical publications or equal to other practitioner publications) and during hiring (history publications are equally acceptable as other publications). The responses were obtained on a five-point Likert scale where, 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; and 5 = strongly agree; and 9 = unsure. However, in the interest of brevity, we

grouped the results thus: (1) disagree (scales 1 and 2); agree (scales 4 and 5); and no opinion (scales 3 and 9). Table 4, provides descriptive data on the perceptions of the faculty about the value of history research comparing the institutional and individual perceptions.

TABLE 4
Usefulness of History Research During Promotion,
Tenure and Hiring:
Institutional and Individual Perceptions (percentages)*

	Institutional Perception (by institution)			Individual Perception (by rank)				Total
	Doc- toral	Non- doctoral	Total	Head	Full	Asso.	Asst.	
Acceptable for Promotion and Tenure								
Disagree	24	8	14	8	4	11	8	8
Agree	54	82	72	84	80	77	75	79
No opinion	22	10	14	8	16	12	17	13
Worth equally as other empirical research during promotion and tenure								
Disagree	64	33	43	36	25	27	30	29
Agree	22	51	41	48	50	44	50	48
No opinion	14	16	16	16	25	29	20	23
Worth equally as other practi- tioner research during promo- tion and tenure								
Disagree	22	20	21	23	20	14	20	19
Agree	53	64	60	68	64	67	60	65
No opinion	25	16	19	9	16	19	20	16
Is acceptable during hiring								
Disagree	11	17	8	5	6	6	20	9
Agree	59	73	68	79	81	80	62	74
No opinion	30	10	24	16	13	14	18	17

* The responses were grouped as follows: Disagree (scales 1 and 2); Agree (scales 4 and 5); and No opinion (scales 3 and 9).

As the results in Table 4 indicate, more than one in two academicians from both doctoral and non-doctoral institutions (54% and 82%) believe that during promotion and tenure, history publications are acceptable to their institution as evidence of research productivity. However, when asked to respond whether history research is given equal weight as other academic empirical publications during promotion and tenure, at least two-thirds (64%) of doctoral faculty disagreed (in contrast, only 33% of non-doctoral faculty disagreed with this statement). More than one in two academicians (53% and 64%) stated that history research is given equal weight as practitioner publications only during promotion and tenure decision. The final question related to acceptability of history research publications in a person's resume during recruiting. Academicians from both doctoral and non-doctoral institutions agreed that history research and publications are acceptable to their institutions during hiring (59% and 73% respectively).

We examined personal views among the various ranks of faculty. Specifically, we were interested in the responses of heads of departments who have significant input into promotion and tenure decisions and in the responses of junior faculty who are especially affected by hiring, and promotion and tenure decisions. Both heads of departments (84%) and assistant professors (75%) overwhelmingly agreed that history publications are acceptable for promotion and tenure. Professors (80%) and associate professors (77%) also expressed similar views. As to the question, are history publications equal to other empirical research, there was less support. Only 48% of the heads of departments agreed with the statement and indicated that history publications are equal to practitioner publications (68%). Assistant professors held very similar views as the heads of departments, with 50% agreeing that history research counts as equal to empirical research and 60% agreeing that history research counts as equal to practitioner research. As to the acceptability of history publications on a person's resume during recruiting, over two-thirds of the faculty from all ranks believed that they are acceptable.

A chi-square analysis was performed on the responses to the questions on the usefulness of history research during promotion/tenure and hiring. Our analyses were conducted on the following dimensions: (1) personal and institutional perceptions, regardless of whether a faculty is employed in a doctoral or a non-doctoral institution, (2) personal and institutional perceptions of faculty from doctoral institutions, (3) personal and

institutional perceptions of faculty from non-doctoral institutions, (4) personal perceptions of faculty from doctoral institutions and non-doctoral institutions, and (5) institutional perceptions of faculty from doctoral and non-doctoral institutions. The results are reported in Table 5. The chi square results for all five dimensions analysis were statistically significant at the 0.05 level. The results show that the perceptions of doctoral and non-doctoral institutions on the usefulness of history research during promotion, tenure, and hiring are significantly different and significant perceptual differences also exist among individual academicians and their institutions regardless of whether they are employed by a doctoral or a non-doctoral institution.

TABLE 5
Usefulness of History Research During Promotion,
Tenure and Hiring Institutional and Individual
Perceptions: Statistical Analyses

	Differences in Perceptions — Individuals and Institutions Chi-sq (p-value)				
	Individuals vs. Institutions	Individuals vs. Doctoral Institutions	Individuals vs. Non-doctoral Institutions	Individuals from Doctoral vs. Individuals from Non- doctoral Institutions	Doctoral vs. Non-doctoral institutions
Acceptable for Promotion and Tenure	138.31 (0.00)	62.83 (0.00)	64.33 (0.00)	18.967 (0.00)	33.55 (0.00)
Worth equally as other empirical research during promotion and tenure	185.57 (0.00)	73.38 (0.00)	107.01 (0.00)	22.87 (0.00)	35.28 (0.00)
Worth equally as other practitioner research during promotion and tenure	183.92 (0.00)	65.41 (0.00)	116.69 (0.00)	9.975 (0.01)	5.79 (0.05)
Is acceptable during hiring	171.08 (0.00)	62.47 (0.00)	101.98 (0.00)	9.026 (0.01)	7.97 (0.02)

Academic Perceptions of the Value of Accounting History Research: In the previous section, we reported the views of academicians on the status of history research from an institutional and individual perspective during hiring and promotion/tenure decisions. We then asked academicians to express their views on four other important issues that indicate the perceived value of history research: the importance of history research to the profession, teaching, practitioners, and accounting graduates. We considered that the responses would help us in assessing the perceived value of history research when viewed without the constraints of hiring and promotion/tenure decisions. If significant numbers of faculty perceive that history research is important to teaching, practice, and the profession, it might encourage heads of departments, deans, other faculty, and journal editors to be more receptive to this type of research. In the long term, recognition of the value of history research would also translate into greater weight being assigned to history publications during hiring and promotion/tenure decisions.

Academicians stated their personal views on a five-point Likert scale where, 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; and 5 = strongly agree; and 9 = unsure. As before, in the interest of brevity, we grouped the results into three groups: (1) disagree (scales 1 and 2); agree (scales 4 and 5); and unsure (scales 3 and 9). Table 6, provides descriptive data on the perceptions of the faculty about the value of history research, comparing institutional and individual perceptions.

The results show that academicians from both doctoral and non-doctoral institutions agree (70% and 80% respectively) that accounting history research is important to the profession. Academicians expressed similar supporting views on the question of history research as a valuable aid to teaching (55% and 59% of doctoral and non-doctoral institutions respectively); valuable to practitioners (67% and 75% of doctoral and non-doctoral institutions respectively), and valuable to accounting graduates (62% and 72% of doctoral and non-doctoral institutions respectively).

Once again, we examined the response difference among faculty ranks. There was support from all ranks on the importance of history research to the profession (77%), valuable aid to teaching (58%), effective functioning of practitioners (71%) and valuable for graduates (73%). The responses appear to support the view of the Accounting Education Change Commission [AECC, 1990] that "knowledge of historical and contemporary events affecting the profession is essential to effective teaching" [p. 310] and "history of the accounting profession

TABLE 6
Faculty's Perception About the Value of History Research:
Comparison of Institutional and Individual Perceptions
(percentages)*

	Institutional Perception (by institution)			Individual Perception (by rank)				Total
	Doc- toral	Non- doctoral	Total	Head	Full	Asso.	Asst.	
Is important to the profession								
Disagree	9	5	6	9	6	8	5	7
Agree	70	80	77	70	82	80	74	76
No opinion	21	15	17	21	12	12	21	17
Is a valuable aid to teaching								
Disagree	12	13	14	19	14	9	12	14
Agree	55	60	58	53	58	62	58	58
No opinion	33	27	28	28	28	29	30	28
Is valuable for the effective functioning of the practitioners								
Disagree	5	6	6	6	6	3	5	5
Agree	67	75	72	65	75	76	69	71
No opinion	28	19	22	29	19	21	26	24
Is valuable for graduates to appreciate the body of knowledge								
Disagree	10	5	7	10	0	8	9	6
Agree	62	72	68	61	78	72	66	71
No opinion	28	23	25	29	22	20	25	23

* The responses were grouped as follows: Disagree (scales 1 and 2); Agree (scales 4 and 5); and No opinion (scales 3 and 9).

and accounting thought" [p. 311] are both essential to effective teaching.

In Table 7, we report the statistical analyses. We compared the responses on three dimensions: (1) responses of various ranks from all institutions; (2) responses of various ranks from doctoral institutions; and (3) responses of various ranks from non-doctoral institutions. Differences in these responses were not statistically significant. Academicians from all ranks were

TABLE 7
Value of History Research During Promotion,
Tenure and Hiring
Individual Perception (by rank)

	Differences in Perceptions Among Individuals and Institutions Chi-sq (p-value)		
	Individuals from all Institutions By rank	Individuals from Doctoral institutions By rank	Individuals from Non-doctoral institutions By rank
Is important to the profession	2.91 (0.820)	3.98 (0.679)	3.24 (0.778)
Is valuable aid to teaching	11.18 (0.083)	8.83 (0.183)	6.94 (0.326)
Is valuable for the effective functioning of the practitioners	7.81 (0.252)	7.58 (0.270)	4.64 (0.59)
Is important to the profession	5.19 (0.519)	7.91 (0.245)	8.49 (0.204)

more emphatic about the value of history research for the effective functioning of practitioners and its value to graduates. The results, with greater consensus on the value of history research, was in contrast to the results reported in Table 4 on the usefulness of history research during promotion, tenure and hiring with significant differences among the respondents. We believe that these contrasting results are indicative of the academic environment in the U.S. where some research is considered mainstream by the institutions and where some publications are acceptable for promotion and tenure decisions. The environment compels the faculty to more actively engage in research that would secure promotion and tenure and encourages faculty to ignore other research that would be valuable for the long-term development of the profession, teaching, or its graduates.

Academic Perceptions about the Contribution and Methodological Rigor of Accounting History Research: We finally asked the academicians whether they considered that accounting history research and publications offered a significant contribution to the accounting literature and whether accounting history research

was comparable in terms of its methodological rigor to contemporary accounting research. We expected responses to these two questions would complement earlier responses to questions on the usefulness of history research during promotion, tenure, and hiring and value of history research to the profession. We asked faculty to respond to the contribution and rigor of history research from the institutional and individual perspectives. The responses were obtained on a five-point Likert scale where, 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; and 5 = strongly agree; and 9 = unsure but were reclassified into three groups: (1) disagree (scales 1 and 2); agree (scales 4 and 5); and no opinion (scales 3 and 9). Table 8, provides descriptive data on the perceptions of the faculty about the contribution and rigor of history research comparing the institutional and individual perceptions.

TABLE 8
The Contribution and Rigor of Historical Research:
Institutional and Individual Perceptions (percentages)*

	Institutional Perception (by institution)			Individual Perception (by rank)				Total
	Doc- toral	Non- doctoral	Total	Head	Full	Asso.	Asst.	
Contributes to accounting literature								
Disagree	13	8	10	5	5	6	5	5
Agree	60	77	72	76	84	67	68	78
No opinion	27	15	18	19	11	27	27	17
As rigorous as other contempo- rary accounting research								
Disagree	41	27	32	28	28	23	23	26
Agree	15	35	28	28	34	32	32	33
No opinion	44	38	40	44	38	45	45	41

* The responses were grouped as follows: Disagree (scales 1 and 2); Agree (scales 4 and 5); and No opinion (scales 3 and 9).

As the results in Table 8 indicate, there was strong support for the statement "history research contributes to accounting literature" from the institutional perspective (72%) and from the individual perspective (various ranks) (78%). However, when asked to respond whether history research is equal in

methodological rigor as other contemporary accounting research, there was very weak support from doctoral institutions (15%) and only limited support from non-doctoral institutions (34%). Similarly, on an individual basis, faculty from various ranks, showed only limited acceptance of the rigor of history research (ranging from 28% for heads of departments to a high of 34% for full professors).

We then compared the response differences relating to contribution and rigor on the following dimensions: (1) personal and institutional perceptions, regardless of whether a faculty is employed in a doctoral or a non-doctoral institution, (2) personal and institutional perceptions of faculty from doctoral institutions, (3) personal and institutional perceptions of faculty from non-doctoral institutions, (4) personal perceptions of faculty from doctoral institutions and non-doctoral institutions, and (5) institutional perceptions of faculty from doctoral and non-doctoral institutions. The results are reported in Table 9.

The chi-square results for the first three dimensions, comparing the perceptions of the individuals with their institutions,

TABLE 9
The Contribution and Rigor of Historical Research:
Statistical Analyses of Institutional and
Individual Perceptions

	Differences in Perceptions — Individuals and Institutions Chi-sq (p-value)				
	Individuals vs. Institutions	Individuals vs. Doctoral Institutions	Individuals vs. Non-doctoral Institutions	Individuals from Doctoral vs. Individuals from Non- doctoral Institutions	Doctoral vs. Non-doctoral institutions
Contributes to accounting literature	194.73 (0.00)	88.76 (0.00)	105.48 (0.00)	16.62* (0.10)	0.59* (0.99)
As rigorous as other contempo- rary accounting research	284.15 (0.00)	80.07 (0.00)	203.82 (0.00)	4.06* (0.67)	3.56* (0.73)

* Not statistically significant at the 0.05 level

were significant at the 0.05 level. The results indicate significant differences between the individual perspective and the institutional perspective on both contribution and methodological rigor. However, when we analyzed the response differences between individuals from doctoral institutions and non-doctoral institutions and differences between doctoral and non-doctoral institutions, the results were not significant. That is, there was greater consensus between individuals and institutions on (1) the contribution of history research to the accounting literature and (2) history research does not have the same rigor as other contemporary accounting research.

The response of individuals from non-doctoral institutions that history research was not equal in rigor to contemporary empirical research was surprising. Earlier, individuals from non-doctoral institutions responded with greater support than their counterparts in doctoral institutions on the questions of usefulness and value of history research. The skepticism expressed by academicians of all ranks and from all institutions over methodological rigor should be noted by accounting researchers. We do not suggest that history researchers should resort to indiscriminate replication of current empirical methodology. However, where applicable, if history research could increase its methodological rigor, in the long run, it will enhance its acceptability to all institutions and its contribution to the accounting literature.

SUMMARY AND CONCLUSIONS

This study surveyed the perceptions of U.S. accounting faculty to ascertain their interests in accounting history and accounting history research. Specifically, the study examined whether the emphasis placed by the AECC and others on the importance of historical content in the accounting curriculum and the greater opportunities in terms of resources and publication outlets available to publish accounting history research have resulted in (1) more accounting courses with a history content in the U.S. business schools, and (2) greater interest among U.S. academicians in accounting history research. Analyses of the survey responses indicate that neither of these has happened.

The number of courses with history content has declined in the U.S. business schools during the period 1985-1997. Although several accounting education committees have recommended that accounting education should include history of

accounting in the accounting curriculum, we did not find evidence of such changes in academic institutions in the U.S. While individual academicians in the U.S. seemed to appreciate the importance of accounting history to the profession, practitioners and graduates and its contribution to accounting literature, their institutions were not responding by making appropriate changes to the accounting curriculum.

As for interest in accounting history research, academicians from doctoral institutions, more so than academicians from non-doctoral institutions, indicated that history research is less likely to be rewarded during hiring, tenure, or promotion than other empirical research. When asked to express their personal views on the importance of accounting history research, there was some support that accounting history research is useful and should be treated as equal to other empirical research. We interpret the greater recognition of the value of accounting history research and yet, reluctance of academicians to pursue accounting history research as indicative of a reward system for promotion, tenure, and hiring that prevails in the U.S. which emphasizes that some research is more mainstream than other types of research.

We also elicited the views of the academicians on the rigor and contribution of accounting history research. Unlike responses to questions on the usefulness and value of history research, there was greater consensus among doctoral and non-doctoral faculty that accounting history research is not equal to other empirical research in its methodological rigor. The overwhelming perception among U.S. academicians that history research lacks methodological rigor is a matter for concern. Regardless of whether the perception is correct or not, we believe that this is an important issue and should be discussed and dealt with by the academic community, the Academy of Accounting Historians, accounting history researchers, and the professional and academic institutions.

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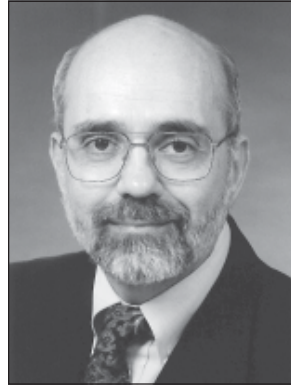
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ACCOUNTING HALL OF FAME 2000 INDUCTION

August 14, 2000
Philadelphia, Pennsylvania

Remarks, Citation, and Response

JOEL S. DEMSKI



REMARKS

by

Professor Charles T. Horngren
Stanford University
Hall of Fame Member

This occasion is a special honor and treat for me. I have known Joel Demski since 1963, when he was a superlative doctoral student at the University of Chicago. The middle 1960s were heady years for the doctoral program there. Among its students in accounting and finance were many individuals who have made noteworthy contributions to the scholarly literature and practice. Examples are such names as Demski, Beaver, Ball, Brown, Watts, Fama, Mike Jensen, Roll, and Scholes.

I have watched Joel grow from a bright, leading doctoral student to become the leading researcher in the entire world regarding applications of information economics and agency theory to accounting. Along the way, Joel and I and our wives have become close friends. Millie has been a fabulous supporter and partner. Joel is a superb role model for academicians. For over 33 years, he has been a refreshing trailblazer in accounting research. His amazing productivity and sophistication continue to flourish.

Joel is not merely a splendid researcher. He is an educator in the broadest sense. He is a treasure for any university. In particular, he has a set of collegial skills that raises the level of scholarship throughout a doctoral program and especially throughout the younger faculty.

Joel and I were Stanford colleagues for eighteen years. In 1985, to my dismay, he departed for Yale. I said to him, "Joel, I looked forward to our growing old together here." He replied, "We have."

Now I shall read the citation, which was prepared by Dan Jensen.

CITATION

prepared by

Daniel L. Jensen

The Ohio State University

read by

Charles T. Horngren

Known for the originality and rigor of his research, this distinguished and consummate scholar has played a leading role in accounting research for over three decades. He was born in 1940 in Sturgis, Michigan, the second of five children born to George and Athalia Demski. Both his mother, who was a high school graduate, and his father, who did not complete grammar school, stressed the importance of education. In the early 1940s, the family moved to Pinconning, Michigan, where he spent his early years and where his father founded a small manufacturing company.

His own interests and his parent's business led him to study engineering at the University of Michigan, where he arrived just after the launching of Sputnik and the resultant revitalization of engineering education. "After engineering school," he recalls, "I was not sufficiently intrigued by family business, the auto industry in general, or consulting to leave what I had discovered to be the joys of university life." Thus he remained at Michigan after his BSE in industrial engineering (1962) and enrolled in its MBA program where he encountered William A. Paton and took courses from Stephen A. Zeff and Samuel R. Hepworth, who kindled his interest in accounting and encouraged him to pursue a Ph.D.

He received his MBA degree with high distinction in 1963 and, after reviewing business Ph.D. program catalogs in the University of Michigan library, he selected the University of

Chicago because it appeared open to an emphasis on mathematics. He was awarded a Ford Foundation Fellowship and moved to Chicago. There he worked with Sidney Davidson, Nicholas Dopuch, Charles Horngren and a host of other faculty as well as fellow students such as William Beaver and Philip Brown. Charles Horngren became his advisor and led him through the experience of a dissertation and into a distinguished academic career.

When he completed his Ph.D. in 1967, he took his first professorial position at Columbia University, where he worked with Carl L. Nelson. He recalls, "Chuck Horngren and the Chicago experience taught me how to think, and Carl taught me what it means to be a professor." In 1968, he joined the accounting faculty at Stanford University where he held the Paul Holden Professorship and later the Joan E. Horngren Professorship in Accounting. In 1985, he moved to Yale University to become the Milton Steinbach Professor of Information and Accounting Systems and in 1994, to the University of Florida to become the Frederick E. Fisher Eminent Scholar in Accounting.

His pathbreaking work on applications of information economics and agency theory to accounting is presented in 60 published journal articles, 5 books, and over 25 other published papers. His work and that of the countless students he inspired has created a new domain for accounting theory. He is one of the most widely cited authors in the accounting literature and many of his papers have been awarded national prizes for their importance and influence. One of his first papers, "An Accounting System Structured on a Linear Programming Model," won the 1967 AICPA Award for Outstanding Contributions to the Accounting Literature and 3 years later, another paper, "The Use of Models in Information Evaluation" (written with his former colleague Gerald Feltham), captured the same award. Another early paper, "Decision Implementation Interface..." won the 1969 American Accounting Association Competitive Manuscript Award. His articles have been required reading for doctoral students for over three decades, and his doctoral seminars, which he has delivered to many universities, are nationally known for their insights and their capacity to inspire and prepare students for research. His most recent book, *Managerial Uses of Accounting Information*, brings this important work and his insightful thinking about fundamental accounting problems to interested students at all levels.

For many years, he has played an active role in the Ameri-

can Accounting Association. He has served on many of its committees and editorial boards. Next year he will serve as its president-elect. He has also been a member of the editorial boards of the *Journal of Accounting Research* and many other journals. He is known as a true scholar for his probing mind and uncompromising pursuit of excellence. He is also well-known as a mentor and as a superb example for others because of his willingness to invest himself in the work of his colleagues and students.

His many honors include an honorary doctorate from Odense University in Denmark, the American Accounting Association's Outstanding Educator Award (1986), multiple awards of the AICPA-AAA Outstanding Contribution to Accounting Literature Award (1967 and 1970), and the University of Florida Foundation Research Professorship.

In 1964, he married Millie Sobieray. They have three children, Jay, Rachel and Sybil. His hobbies center on beach activities, twentieth century history, and sporting clays. He is the 64th member of the Accounting Hall of Fame, Joel Stanley Demski.

RESPONSE

by

Joel S. Demski

University of Florida

I have long regarded the Accounting Hall of Fame as Bill Paton's Club, a club of legends of the likes of Hatfield, Littleton, Chambers, Horngren and Ijiri, and, of course, Paton himself. To be invited into this Club is an honor beyond description, as well as profoundly humbling.

In broader terms, I see today's event as a celebration of accounting scholarship: its growth, its accomplishments and its prospects. Accounting has become serious scholarly work in the social sciences. Its roles within an organization's fabric, in globalized financial markets, and in and across public, private and not-for-profit sectors have become major scholarship activities.

In turn, these activities have deepened our understanding of accounting institutions, painted in vibrant colors the limits of our understanding, engendered intellectual excitement, and raised our relevance and stature within the academy.

We have learned the importance of studying accounting in its environment, with explicitly active users, and with complementary measurement and reporting services. And we have learned that, with sufficient abstraction, accounting in all its forms, from the sole proprietor to national income reporting,

and in all its locations, whether North America, Europe, Asia or wherever, is cut from the same theory.¹

These are exciting developments. And this is why I view today as a celebration, a celebration of what our community has accomplished, and the opportunities that are on our doorstep.

My own role here is surely modest, and heavily influenced by a host of individuals and good fortune. I had the good fortune to attend Michigan's Engineering School and to then be taught by Sidney Davidson, Nick Dopuch and Chuck Horngren, not to mention a cast of extraordinary students, at Chicago. I also had the good fortune to be tutored at Carl Nelson's finishing school. At Stanford I discovered Bob Wilson, the very embodiment of all that Carl was trying to portray. And it was there that I hooked up with colleagues, co-authors and life time friends, Bill Beaver, Jerry Feltham and Bob Swieringa, and re-connected with my advisor and mentor and friend, Chuck Horngren. These were magic times.

This circle of simply extraordinary friends and colleagues gradually expanded to include, among others, John Fellingham, Hadley Schaefer, Katherine Schipper, and Doug Snowball. And as I look around and ruminate over inter-generation passage I am privileged to know and be reassured by young scholars like Jon Glover, Karl Hackenbrack, and Russ Lundholm. Each one of these individuals has touched me in important ways; and each is a genuinely good person.

Add to this the opportunity to work with a steady supply of remarkable students, such as Gary Sundem, Stan Baiman, Froystein Gjesdal, John Christensen, Rick Antle, Rick Lambert, Srikant Datar, Steve Huddart, Bente Villadsen and Pierre Liang. It just doesn't get any better.

Well it does. My deepest debt, by orders of magnitude, is to my wife, Millie. We have been married for over 36 years, a marriage of joy, of love and of friendship. Millie is my confidante, my source of encouragement, my moral compass, my

¹This work is found throughout the scholarly literature of the past four decades. Examples, with an eye toward, but not exclusive focus on, theoretical work, are provided by Butterworth [1972], Feltham [1972], Ijiri [1975], Demski and Feltham [1976; 1978], Gjesdal [1981], Libby [1981], Watts and Zimmerman [1986], Ohlson [1987], Dye [1988], Demski [1994], Demski and Feltham [1994], Feltham and Ohlson [1995], Scott [1996], Sunder [1997], Beaver [1998], Christensen and Demski [2000] and Christensen and Feltham [2000].

source of wisdom. She keeps me balanced, but focused, and optimistic. This journey would never have taken place were it not for Millie.

I have been blessed to be one of the workers in our community of scholars. And I am deeply, deeply honored by this induction into the Accounting Hall of Fame. But let's not forget this is a community endeavor. So let's all celebrate our collective accomplishments and, more important, our prospects.

Thank you, thank you all, for the privilege of being a part of this celebration. And, Millie, there simply is no way to adequately express my feelings, my admiration and my gratitude.

Thank you.

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ACCOUNTING HALL OF FAME 2000 INDUCTION

November 10, 2000
Columbus, Ohio

Remarks, Citation, and Response

CHARLES W. HASKINS



REMARKS

by
J. Michael Cook

It is very special for me to have this opportunity to receive the Hall of Fame induction of Mr. Haskins, and I accept it on behalf of the partners of Deloitte & Touche and especially those partners of the firm I joined in 1964, Haskins & Sells.

We often say that today's leaders stand on the shoulders of the giants who preceded them. This was certainly true for me; it was my great fortune to know Mr. Foye and to have worked with Oscar Gellein and John Queenan – all three of them true Hall of Famers, who themselves stood on those very broad shoulders of Mr. Haskins and Mr. Sells, our founders.

If Mr. Haskins were here this evening, I know that he would tell you just how proud he is to join his partner Mr. Sells in the Hall of Fame. I recently had occasion to read the original Haskins & Sells partnership agreement of more than 100 years ago. I was taken by how very simple and straightforward it was. They were truly equal partners in every way. The firm name was an alphabetic arrangement of the names of those two partners – very much like the order of their New York CPA certificates which were in the first group ever issued – No. 6 to Mr. Haskins and No. 10, alphabetically again, to Mr. Sells.

So, if Mr. Haskins could be here this evening, he might say that it only seems right that for once Mr. Sells got to go first, in this case preceding him into membership in the Hall of Fame. He would also say that he is very pleased to be joining his partner in the company of such distinguished professionals. From what I have read and heard of Mr. Haskins, he would be very, very humble in his remarks, but he would be very, very proud of this wonderful recognition. On his behalf I thank you very much for this wonderful honor which you have bestowed upon him.

CITATION

prepared by

Daniel L. Jensen

The Ohio State University

read by

J. Michael Cook

Recognized as the Certified Public Accountant's first statesman, he was a founding and senior partner in the firm that became Deloitte and Touche and a leader in securing passage of the earliest legislation leading to the licensing of accountants in the United States. He was born in 1852 in Brooklyn, New York, into a prominent family with New England origins and substantial business interests. He was educated in the private schools and the Brooklyn Polytechnic Institute, graduating in 1867. With the encouragement of his parents, he had studied to become a civil engineer; however, he decided to pursue a career in accounting and in 1869 took a position in the accounting department of Frederick Butterfield & Co., a New York City importing house. After five years with this firm, he spent two years traveling in Europe and studying in Paris. Upon his return, he joined the brokerage firm of his father, Waldo Emerson Haskins, for a short period and then entered the accounting department of North River Construction Company, which was then engaged in building the New York , West Shore and Buffalo Railway. When the "West Shore" was completed, he became its general bookkeeper and auditor of disbursements. In 1885, he married Henrietta Havemeyer, daughter of a wealthy New York family.

When the "West Shore" was absorbed by the Vanderbilt New York Central system in 1886, he opened his own accounting practice. During this period, Haskins provided advice and built accounting systems for some of the nation's most impor-

tant businesses, including banks, railroads, and steamship lines. In 1893, he and Elijah W. Sells were appointed to a joint commission of the U.S. House and Senate (the "Dockery Commission") that investigated the executive departments of the government and made recommendations to improve their operation; their report led to the adoption of a number of important simplifications and improvements in the conduct of public business. Upon completion of this successful collaboration in 1895, they co-founded the accounting firm that bore their name for over half a century (now included in Deloitte & Touche). It's early clients included Vassar College, the U. S. Post Office Department, several railroads, the Borden Company, Quaker Oats, the City of Chicago, and Barnum and Bailey's Circus. By 1903, the firm, which was headquartered in New York City, employed 140 accountants and had branch offices in London, Chicago, St. Louis, and Pittsburgh. In these early years of the 20th century, the firm was undoubtedly the most influential and respected public accounting firm native to the United States.

A man of wide influence and an enthusiastic advocate of standards and education for accountants, he was influential in securing passage of "An Act to Regulate the Profession of Public Accountants" by the New York State legislature in 1896, which led to the creation of the first CPA examination. He served as the first president of both the New York State Board of Examiners of Public Accountants and the New York State Society of CPAs. He, with Elijah Watts Sells, was a co-founder of the New York University School of Commerce, Accounts and Finance where he taught and served as its first dean. Here he fostered an approach to business education that encompassed all aspects of business activity—an approach that went beyond the narrow accounting training that characterized business programs of the day.

Sadly, he died of pneumonia in 1903, shortly before his fiftieth birthday. He is the 67th member of the Accounting Hall of Fame, Charles Waldo Haskins.

ACCOUNTING HALL OF FAME 2000 INDUCTION

August 14, 2000
Philadelphia, Pennsylvania

Remarks, Citation, and Response

SHAUN F. O'MALLEY



REMARKS

by

Robert L. Brown
PricewaterhouseCoopers

Good morning. I am pleased and honored to represent Shaun's Price Waterhouse partners at his induction ceremony into the Accounting Hall of Fame. For those of you who know him, you know this is an appropriate and well deserved honor.

It is also appropriate that this ceremony take place in Philadelphia. Julie and Shaun are both long time Philadelphians, having spent the majority of their lives here. Aside from several brief times when the Firm asked Shaun to work elsewhere, they have been in Philadelphia, and they always returned with a special enthusiasm.

Shaun has always approached endeavors with which he has been associated with a unique blend of intelligence, integrity, common sense and a great sense of humor. As I was reviewing my remarks with colleagues in preparation for this, one word they all used to describe Shaun was "class." That one word is certainly an appropriate summary of him.

When I review the citation with you in a moment, I am sure you will be struck, as I was, by the depth and breadth of his accomplishments. He certainly has made significant contri-

butions to the profession he loves so much. Equally impressive are the substantive roles he has played in various commercial and community organizations. Collectively, these roles help to define an extremely talented and dedicated professional who has made substantive contributions to the organizations and individuals with whom he has worked and who richly deserves the honor which you are bestowing on him today.

CITATION

prepared by

Daniel L. Jensen

The Ohio State University

read by

Robert L. Brown

PricewaterhouseCoopers

This respected accounting leader and statesman was born in Philadelphia, Pennsylvania, in 1935, the fifth of eight children. His father was an attorney and civil servant. He attended Waldron-Mercy Academy for the first eight grades and completed his secondary education at Canterbury School, where he was a member of football, basketball, and baseball teams and also active in dramatics. In the fall of 1952, he entered the University of Pennsylvania as an English major but left after one semester, owing to a deteriorating family financial situation. He entered the U. S. Army serving until 1955 with the Seventh Army Occupation Force in Germany. His father died while he was in service.

Upon discharge from the Army, he returned to the University of Pennsylvania and, in the spring of 1956, transferred to the Wharton School. He financed his education through the GI Bill, summer jobs, and work at the University Library. He was also active in intramural athletics and a dramatics group and was president of his college fraternity.

In 1959, he graduated with a B.S. in Economics and a major in accounting and joined Price Waterhouse as a staff accountant. He remained in Philadelphia until 1966 when he was assigned to Tokyo and Osaka, Japan, an experience which further fueled his long-held interest in international business. He returned to the U. S. and in 1968 was assigned to the firm's National Office Research Department supporting the firm's member on the Accounting Principles Board. In 1970, he was promoted to partner and returned to Philadelphia, where for the next eight years he served a wide variety of publicly-owned

clients and earned the respect of clients and colleagues alike for his astute accounting and business advice to multinational companies entering new businesses and international markets. In 1978, he again transferred to the National Office for one year to support the newly elected firm's chairman in developing the firm's position on inflation accounting and a number of other pressing financial reporting issues. In 1980, he was named partner-in-charge of the Philadelphia office. In 1984 he was elected to the U.S. firm's governing board, and in 1987 he was elected Chairman and Senior Partner of the U. S. firm. He was elected Co-Chief Executive Officer of the worldwide organization in 1990 and appointed Chairman of the worldwide organization in 1992, a position he held until 1995, when he retired from Price Waterhouse.

His many contributions to the accounting profession include service as a member and chair of the Board of Trustees of the Financial Accounting Foundation, during a period in which the Foundation maintained strong support for the FASB despite continuing criticism and attacks on the standard-setting body. He was also a member of the Securities and Exchange Commission's Emerging Markets Advisory Committee and many committees of the Pennsylvania Institute of CPAs.

In 1998, after retirement, he was appointed Chairman of the Public Oversight Board's Panel on Audit Effectiveness to carry out a project requested by Securities and Exchange Commission Chairman, Arthur Levitt. Over the next one and one-half years, he led a comprehensive investigation of the auditing profession that included on-site visits of accounting firm offices, reviews of a number of actual audit engagements, and interviews of participants at all levels. The project also included extensive consultation with practitioners, regulators, corporate officers, and internal auditors and a series of public hearings scheduled both before and after issuance of its comprehensive "Report and Recommendations" designed to improve audit effectiveness and unify and strengthen the system of governance of the accounting profession.

A frequent and impassioned speaker, his writings on financial reporting, ethics, liability reform, and other issues have been published in a variety of business and professional journals. From the earliest years with his firm, he has been actively and directly involved in groups working for progress on these issues. He served on the Ethics Committee of the Pennsylvania Institute of Certified Public Accountants and as a member and chair of the board of the Ethics Resource Center in Washing-

ton, D.C. and has spoken on the subject of business ethics before a number of groups. In addition he has been an active member of the National Center on the Educational Quality of the Workforce and chaired the Mayor's Committee to Select Members of the Philadelphia School Board.

He played key roles in community development activities through his work with the Greater Philadelphia First Corporation, as a member of its Economic Development Committee and chair of its Regional Planning Committee; his membership on the boards of directors of the Greater Philadelphia International Network and the World Affairs Council of Philadelphia; and his chairmanship of Philadelphia's Committee of Seventy. In New York City, he served on the executive committee of Mayor Koch's Private Sector Survey and played a leading role in Mayor Dinkins' New York City Alliance for International Business. He has been a member and chair of the board of trustees of the Curtis Institute of Music, a member of the Board of Overseers of The Wharton School, a member of the Board of Directors of the SEI Center for Advanced Studies in Management at The Wharton School, and a member of the boards of the Monell Chemical Senses Center, the University of Pennsylvania Health System, Chestnut Hill College, the Canterbury School, Springside School, and the Board of Co-operation Ireland. In addition, he has served on several corporate boards of directors including the Horace Mann Educators Corporation, Vlastic Foods International, Coty, Inc., The Philadelphia Contributionship, The Finance Company of Pennsylvania, and the Philadelphia Belt Line Railroad.

In 1965, he married Sibyl Julia (Julie) Bernard upon her graduation from Bryn Mawr College; while accompanying her husband on three tours of duty in New York and one in Tokyo/Osaka, she was able to continue her education and career earning an MA from LaSalle University and a Ph.D. from Bryn Mawr in Psychology and practicing as a clinical psychologist in Philadelphia. They have three children—Brendan, Sibyl, and Aine—and three grandchildren. He and his wife live in Philadelphia, and he enjoys tennis, golf, music, reading and history. He is the 66th member of the Accounting Hall of Fame, Shaun Fenton O'Malley.

RESPONSE

by

Shaun F. O'Malley

PricewaterhouseCoopers

I want to thank the Hall of Fame and its chair, Dan Jensen, and its Selection Committee who have designated me for this unique honor. After Dan informed me of my selection, I began to reminisce about a career going back to that July day in 1959 when I first entered the profession as a staff accountant at PW—armed with an undergraduate degree from the Wharton School. In truth, at the outset I came with no predetermined life commitment to the profession—but with a willingness to work hard and see where it might take me.

Well over the next 36 years it took me all over the world, three tours in New York, one in Tokyo and Osaka and during the last five years of my time in the firm, to every continent, save the Arctic ones—and through myriad difficult and complex problems, issues and challenges that kept my mind fully engaged and my stamina fully tested.

But in terms of a stimulating, enjoyable career, the accounting profession delivered just that and I have never regretted for a moment the years I committed to it. When I think back on the tremendous client associations, the relationships and friendship with literally hundreds of colleagues, with the professional societies on numerous committees and with the academic community, I realize how fortunate I was to be in this profession at the time I was in it.

I served as staff support to an APB member at the time of APB 16, 17, 18—three critical pronouncements which impacted the practice of accounting enormously and for many years. And I think of my six months of involvement in the debate over inflation accounting in the late 70s—another challenge on what was then a white hot issue that cooled down quickly once the nation got inflation under control. And my opportunity to serve as Chairman of the FAF at a time when the FASB was under heavy fire was another rewarding experience—but not without its problems. The opportunity to lead a firm in the explosive growth into Eastern Europe, the former Soviet Union, China and the Far East provided an unforgettable and rewarding experience—so did the opportunity to lead a firm that played an important role in the enormous technological movement of the 1990s.

No professional can ask for anything more—an exciting,

dynamic professional environment, great clients to work with, exceptionally talented colleagues with whom to share the load, a culture of true partnership, and the opportunity to spend significant time serving one's community. I could not have written a better script for a career.

Upon my retirement from PW some five years ago, I thought the high intensity fully packed schedule was a thing of the past for me and I was ready to try other things—and I did, but at a measured pace. Then, along came the Panel on Audit Effectiveness and almost two years of pretty intensive effort which is now coming to fruition with the publication of our final report a couple weeks from now. It has been a difficult but ultimately rewarding experience—an opportunity to help chart a course for our great profession. On top of all this to receive the recognition which Hall of Fame election signifies is almost too much—and I mean that seriously—I wouldn't be here today without the tremendous support and encouragement of so many, many people too numerous to mention, but one of whom, Jack O'Hara, who mentored and supported me in the early stages of my career and as a young partner I'm delighted is here with us this morning. And my wife, Julie, and our family without whose tolerance, encouragement and support I could never have made it. And finally, let me acknowledge the support of my colleagues on the Panel, two of whom are here this morning (Professors Zoe-Vonna Palmrose and Dave Pearson who contributed mightily to our effort) and Mary Thomas, my assistant who kept me, the Panel and its complicated scheduling and logistics on track.

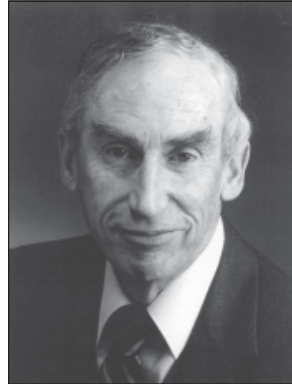
Again, to the members of the Board a deep and sincere thank you for this honor and an equal portion of thanks to those hundreds of colleagues with whom I share it.

ACCOUNTING HALL OF FAME 2000 INDUCTION

August 14, 2000
Philadelphia, Pennsylvania

Remarks, Citation, and Response

ROSS M. SKINNER



REMARKS

by

Robert T. Rutherford, FCA
The Canadian Institute of Chartered Accountants

It is indeed an immense honour for me to be here today, to have been given the opportunity to recognize the outstanding contribution of Ross Skinner to the accounting world and our community and to be amongst such an august body.

Even today, I'm sure Ross does not realize the significant impact he has had on the accounting profession and the business community. His first major accounting book "Accounting Principles: A Canadian Viewpoint", published in 1972, was highly influential in shaping accounting frameworks and providing substantial guidance to accountants, lawyers, educators and judges. Many legal cases were resolved on the strength of insight found in this publication.

The book has been republished over the years and just recently the latest edition "Accounting Standards in Evolution" has been published with co-author Dr. Alex Milburn. The book continues to contain important insights into the need for accounting, starting with a look back into history right up to the present day.

All of these things may not have happened, because the

accounting profession almost lost Ross several times. Once, while riding on a friend's motorcycle, Ross got into a bit of an accident and nearly went over a hill into the St. Lawrence River. On another occasion Ross, who was looking for new challenges, was offered a position with the Ontario Jockey Club. On the other hand, a partnership with Clarkson Gordon (now Ernst & Young) was also offered.

So horseracing went on to have Northern Dancer and Clarkson Gordon got Ross. Which seems only fair. After all, why should the Ontario Jockey Club gain two bright stars in one decade?

So here we are today paying tribute to the accounting star, who is accompanied by his wife, partner and best friend, Helen, and other supporters from Canada. It now gives me great pleasure to read the citation prepared by Dan Jensen.

CITATION

prepared by

Daniel L. Jensen

The Ohio State University

read by

Robert T. Rutherford

The Canadian Institute of Chartered Accountants

The scholarly approach of this distinguished Canadian accountant, brought new solutions to problems of both accounting and auditing. Born in 1923 in Saskatoon of parents who immigrated from Scotland, he was the son of a Presbyterian minister and a mother who valued education and took a firm hand in securing the best schooling for her son. The family moved to Oneonta, New York shortly after his birth but returned to Toronto four years later where he spent the remainder of his youth. At University of Toronto Schools, to which he gained entry by highly competitive examination, he was one of the top students in his class and also took a keen interest in sports. He developed a life-long involvement in tennis and, despite weighing less than 100 pounds, he played goalie on both Toronto Hockey League and UTS hockey teams.

Following graduation from UTS in 1940, he applied for admission to the University of Toronto. After seven days of scholarship examinations, he won highest marks in Greek and Latin and a University College scholarship for general proficiency. Knowing that he wanted to pursue a business career, he enrolled in the Commerce and Finance Honours Course at the

University of Toronto. At that time, the business curriculum was under the Department of Political Economy and fully half of the C&F subjects were shared with students in political science and economics. Although he found the economics courses very satisfying, he later noted "the accounting and auditing courses were trivial and the statistics course mechanical rather than insightful. The most practically useful courses to my later career proved to be actuarial science, particularly the theory of interest, and commercial law." He played intra-mural soccer and hockey during all four years of university and was goalie on the hockey team that won the university championship for his college for the first time in 22 years. A friend convinced him to join the debate team during his senior year, whereupon he found himself struggling with the need to argue in favor of the proposition, "A woman's place is in the home," and he volunteered for work in the fields of Saskatchewan during the perilously late grain harvest of 1941, which was desperately needed to stem the food shortage in Britain.

Two years younger than most of his class mates, he was not recruited for military service until after his fourth year of university at which time he joined the Royal Canadian Air Force as a meteorologist. Following a summer of study in meteorology, he was stationed at the Air Navigation School outside Charlottetown, P.E.I. Initially he was assigned teaching duty—26 classroom hours per week—but was soon assigned the challenging job of forecasting weather conditions for the school's training flights. When the war ended, he was discharged and returned to Toronto.

Then 22 years of age, he decided to work for a Chartered Accountant designation with the ultimate goal of securing a position in industry. Although he considered an academic career and was accepted for graduate study at the University of Chicago, financial responsibility for his parents led him to choose a business career. On October 1, 1945, he joined the firm of Clarkson Gordon (then Clarkson, Gordon, Dilworth and Nash), the largest Canadian firm. Winning the top prize for auditing in his final CA examination, he received the CA designation in spring 1949. Before he could implement his plan to secure a position in industry, he was promoted to partner and in 1954 became the thirty-second signature on the firm's partnership agreement.

Professional research projects became central to his role in the firm. Well before his promotion to partner, he assisted senior partner J. R. M. Wilson and other partners in various

projects including a 1947 project that led to his becoming the firm's specialist in public utility rate regulation. Upon joining the partnership, he assumed responsibility for the internal memoranda on technical accounting and auditing issues. In 1956, he argued for the development of a new approach to auditing that integrated a review of internal controls and systematic sampling procedures as the basis for an audit opinion and recommendations for system improvements, which was one of the earliest efforts to articulate an integrated approach to auditing. In 1962, he was appointed National Director of Accounting Standards and the innovation in audit procedures, which had been developed and tested on his own audit clients, was gradually extended throughout the firm. In 1966 it was published in the pathbreaking book, *Analytical Auditing*, coauthored with R. J. Anderson.

In the years that followed, he turned his attention to accounting and financial reporting, publishing five additional books and monographs and contributing many chapters and articles to the literature of accounting and auditing. His influential 1972 book, *Accounting Principles: A Canadian Viewpoint*, led to the development of a framework for Canadian accounting standards. In 1975, health considerations caused him to leave his position as National Director of Accounting Standards, but he continued to research and write on a wide range of topics that included inflation accounting, government accounting, accounting for pension costs and liabilities, and the evolution of accounting standards. He retired from Clarkson Gordon in 1983. In 1987 he joined the University of Toronto as adjunct professor and director of its Centre for Accounting Studies, positions he held until 1990.

His contributions to the Canadian accounting profession include extensive committee service for professional, governmental, and academic organizations. Among his numerous committee posts in the Canadian Institute of Chartered Accountants were 5 years of service on its Committee on Accounting and Auditing Research (1959-64) including a term as its chair and 5 years on its Standards Advisory Board (1990-95). He chaired the Auditor General's Independent Committee on Government Accounting and Auditing (1975-78) and in the same period was influential in the CICA's decision to form its Public Sector Accounting Board. He served two five-year terms on the Financial Disclosure Advisory Board of the Ontario Securities Commission (1974-79 and 1990-95) including three years as its chair. He was a consultant to the Commission to Study the

Public's Expectations of Audits (the Macdonald Commission, 1987-88) and, working closely with the Commission, was the principal author of its report. He also served as a vice-president of the American Accounting Association, on the Board of Governors of Havergal College (Toronto), and on the editorial boards of *Contemporary Accounting Research*, *Accounting Horizons*, and the *Accounting Historians Journal*.

In 1962, he was elected a fellow of the Institute of Chartered Accountants of Ontario and, in 1984, he was one of the first five recipients of the Institute's Award of Outstanding Merit. His many honors and awards also include an honorary doctorate of laws from Brock University, the Canadian Institute of Chartered Accountants' Distinguished Service Award, and the Canadian Academic Accounting Association's Haim Falk Award for Distinguished Contribution to Accounting Thought.

In 1958, he married Helen B. Storms, a well-known author and speaker on gardening and floriculture, and they have two daughters, Anne and Jane. He and his wife live in Toronto and spend summers in northern Ontario. He is the 66th member of the Accounting Hall of Fame, Ross Macgregor Skinner.

RESPONSE

by

Ross M. Skinner
Clarkson Gordon

I want, first, to thank Bob Rutherford for being here to read this citation. As has been mentioned, Bob is the Vice-President of the CICA responsible for leading its Standards activities and had originally planned to spend considerable time at the AAA conference. Unfortunately, he now has to return to Toronto almost immediately after this ceremony. I am doubly grateful, therefore, that he is here, in spite of considerable personal inconvenience.

I thank, also, the unknown person or persons who put forward my name for this signal honour and, indeed, all members of the Board of Nominations, who must put in much effort in narrowing down the names of those deemed worthy of entrance into the Hall of Fame. Where I come from, Professor Jensen will be gratified to know, the Hall of Fame is an extremely well-known institution. Sad to relate, it is the Hockey Hall of Fame that is well-known in Toronto. This fact accounts, I am (almost) sure, for the flashes of incredulity my wife and I saw in the eyes of friends when we told them that I was to be inducted

into the Hall of Fame this summer. How does one decide that a worthwhile career can lie in accounting? Often it is because a relative or family friend provides a role model. For some it is the influence of an admired teacher. Neither of these applied to me. I attribute my satisfying career mostly to sheer blind luck. I went into the profession simply because I thought it would give me an insight into the business world and provide a useful skill. Barry Coutts, a good friend with a dry sense of humour, put his decision this way: "After a four-year Honours course in Philosophy I concluded that no-one knew the answer, so I decided to become a Chartered Accountant." Neither Barry nor I thought we would make a lifetime career in accounting, but both of us did.

I have benefited, I think, from three kinds of good fortune: (1) luck of place, (2) luck in timing and (3) luck with people.

I was in the right place on a Friday afternoon in late September, 1945, the right place being on the doorstep of Clarkson, Gordon. At that time, right after the end of World War II, employers were required by law to offer their old jobs back to former employees who had left their position to join the services. I had obtained a list of thirteen CA firms to approach. Unfortunately (or fortunately as it turned out), as I visited them I found every firm fearful of being inundated by returning employees and, therefore, most reluctant to hire a completely new student-in-accounts. Clarkson Gordon, the thirteenth firm on my list, was also reluctant to hire, but owing to my hitting it off with the interviewer, I was accepted.

My choice of accounting in 1945 represented luck in timing. The profession was beginning a long period of growth both in numbers and in public recognition. Chartered Accountants, in general, were building a reputation based, in part, on an arduous educational preparation course and stringent pass rates. Public trust also resulted from the professional obligation to provide objective and independent opinions, and recognition of the worth of those opinions in corporations and securities regulation. As a result, we were asked to undertake many "special" investigatory or advisory assignments by both governments and private interests. My time in accounting was made considerably more interesting by the opportunity to participate in a wide spectrum of such assignments, an opportunity less likely to exist for audit partners today because of the existence of so many specialists.

My luck with people began on the day I first walked into Clarkson's office. The partner who normally conducted hiring

interviews was absent on that day and in his place, I was interviewed by a relatively new partner, one J.R.M. Wilson. Jack Wilson simply bubbled over with enthusiasm for the firm and the opportunities in the profession, and we experienced an immediate rapport. In my first few years in the firm I was a member of his staff, and, then and later, he could justly be called my mentor.

In 1945 Jack was taking on more and more responsibility for overseeing the firm's standards in technical matters. This, of course, became an ever more demanding task, to which he brought a determination that the firm should be the equal of any firm in the world in the quality of its practice. Not only must we conform to best practice, we must also always be aware that innovation was necessary to meet changing conditions. As his own administrative responsibilities increased (he became senior partner in the mid-60s) he devolved more and more of the research and standards responsibility upon me and an ever-growing group of partners and managers in a dedicated Standards department. It was this, together with Jack's pressure to develop and publish improvements in our audit philosophy, and my own interest in the articulation of accounting standards, that has brought me here today.

Having acknowledged my debt to Jack Wilson, I must not forget to mention the many able associates and staff who shared our work in research and standards. I will mention just two of these by name. Rodney Anderson was and is a brilliant polymath, who played a major role in the development of the systems-based audit approach we called Analytical Auditing, and who later went on to make a considerable mark in computer auditing and scientific sampling. Alex Milburn was an essential colleague in the Standards department from the day it was setup as a separate organizational unit. He was also kind enough to undertake a revised version of my 1987 book on *Accounting Standards*, which has just been published under our joint names. I am delighted that Alex is here this morning.

Now for a few words on my major research interest, namely the development of accounting standards. The main thrust of my writing in accounting has always been to try to connect up recognized accounting standards with a conceptual framework. This is consistent with major academic works written by, say, Chambers or Sterling or Edwards and Bell, except that those authors first built their frameworks and then deduced the accounting actions that must flow from the framework. In contrast, especially in my 1972 book, I examined ac-

counting procedures critically and tried to deduce a framework that must exist to explain the existence of such procedures. A possible advantage of this approach is that logical inconsistencies between current concepts and practice are inevitably revealed and, where this occurs, direction is given to revisions in standards or framework that can be made little by little, rather than attempting the revolutionary change which is so rarely politically possible.

Having said that, I must admit it is quite difficult to make incremental or partial changes in an accepted framework (although the change from the old "Matching" concept to the "Asset and Liability" point of view perhaps represents one example). Nevertheless we need to keep reminding ourselves that financial reporting is intended as a means of communication of useful information. Successful communication has two conditions. There must be real information content to the message sent, and it must be communicated in a form that the recipient can readily understand. These challenges, both as to information content and understandable communication, are constantly renewed as the economic environment changes.

Bob Sterling once wrote: "Accountants are the world's greatest conservationists. We don't solve problems; we recycle them." There is much truth in this wry comment. Nevertheless, one cannot look back over the past fifty years without recognizing great progress. New standards have not always been perfect—in fact, they are often second-best solutions because of political pressures. But mostly they have been progressive.

There have been some failures. The inability to make significant progress on the impact of changing prices on the information content of accounting numbers is the most notable example. It may be instructive to note that, in this case, changes proposed to information content ranged from a major patch (General Price Level Accounting) to the existing "historical cost" accounting model, to more than one completely new accounting model based on variants of Current Value Accounting. When the range of possible choice is so wide, human resistance to change (especially when the resistance is organized) will be reinforced by the divisions among supporters of change, with the result that nothing is accomplished. In such situations, incremental change and second-best solutions may be the only route to improved information content. In effect, accounting standards become the art of the possible.

Challenges to informative financial reporting are no less present today. Consider, for example, the problem of conveying

information about the creation and consumption of intangible values, a problem that has become much more important in a knowledge economy than once it was. Consider the tension created in the statement of financial position and statements of changes in financial position if we choose to report significant amounts of financial instruments on a fair value basis, while reporting other assets and liabilities on some other bases. Research may answer these and other problems not mentioned. Supplementary disclosure will help, as it has done so often in the past. Even so, we may still be forced to contemplate changes in the way information is conveyed. I could visualize, for example, abandonment of tightly-knit statements of financial position and income in favour of a more disaggregated set of statements, each focusing on a separate aspect of entity activity. To be comprehended, however, such ideas need to be spelled out at considerable length, and this is not the time or place to do that.

I will simply close with a story that may be new to some of you. Around the end of the 18th. century the English humorist, Sydney Smith, and a friend were visiting one of those old medieval towns where the second stories of houses project beyond the first over the narrow streets. As they were walking along, they observed two women leaning out of their second-story windows across from each other and engaged in a fierce argument. Said Smith to his friend: "Those two women will never agree. They are arguing from different premises." There is a moral there for us argumentative accountants.

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Contents

Articles

Models of the reporting entity and accounting for equity-based consideration	John Forker	3
The use of biodata in the pre-selection of fully-accredited graduates for chartered accountancy training places in Scotland	Elizabeth Gammie	19
Budget emphasis, participation, task difficulty and performance: the effect of diversity within culture	Chong M. Lau Christen Buckland	37
Disclosure of proprietary information in the course of an acquisition	Alfred Wagenhofer	57

Commentary

The golden age of Raymond John Chambers, professional accountant and university educator 1917 to 1999: a memorial	T. A. Lee	71
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Notices

The 9th World Congress of Accounting Historians (WCAH) will be held in Melbourne in 2002. The recently held Congress in Madrid attracted almost 200 delegates from 23 countries drawn from all five continents. Deakin University is the host institution of the Congress. The Convenor is Professor Garry Carnegie of Deakin University.



The 9th WCAH will be held at Rydges Riverwalk Hotel, a specialist and popular conference venue on the banks of the Yarra River. With a cosmopolitan culture and regular direct flights connecting the city to most of the major centres around the world, Melbourne is an ideal centre for an international conference. While Melbourne is a dynamic city, it retains much of the charm and buildings of the nineteenth century during which time it was known as "Marvellous Melbourne". It is recognised as one of the most livable cities in the world, having a wide range of cultural, entertainment and sporting facilities. Melbourne has many fine eating establishments offering a wide array of gourmet delights to satisfy the most discerning taste.

The 9th WCAH is at the beginning of the twenty-first century. The next hundred years provide exciting opportunities to expand the influence and scope of accounting history research and thus to augment our knowledge of the international dimensions of accounting's past and present. For this Congress a series of research themes representing a number of the key interests of accounting historians has been adopted. It is, however, recognised that some scholars will be pursuing other facets of accounting's past and such papers will also be welcomed.

Call for papers

Papers that embrace the following themes are encouraged:

- Professionalisation of accounting
- Cost and management accounting
- Financial reporting and accounting regulation
- Accounting in social institutions
- Comparative international accounting history
- Historiography

Papers which do not fall conveniently within one of these themes are also encouraged and will be considered for presentation.

Papers should be written in English and will be subject to a peer review process through the Program Technical Committee. Submissions in electronic form will be accepted.

Submission of Papers

Papers for the 9th WCAH should be submitted by **14 January 2002** to:

Garry Carnegie
Congress Convenor
School of Accounting and Finance
Deakin University
Geelong
Victoria 3217
AUSTRALIA
Email: 9WCAH@deakin.edu.au

Notification

Notification of papers accepted for inclusion in the 9th WCAH program will be completed by **14 March 2002**

Further details of the 9th WCAH will be progressively added to the Congress website: www.deakin.edu.au/wcah/

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